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THE JUNIOR COLLEGE AND EDUCATIONAL REORGANIZATION

WILLIAM M. PROCTOR

THE two most significant movements in American education during the past ten years have been related to the upward and downward extension of the four-year high school. The junior high school movement, which has had a meteoric development since 1911, has grown in response to the demand for a downward extension of the high school. The number of junior high schools reporting to Briggs in 1917 was eight hundred. Of the development up to that time Briggs says: "So rapid a growth of a new educational institution or of a marked modification in an old one is unparalleled in our history."[1] Since 1917 it is safe to say that the development has been even more rapid and that in the neighborhood of two thousand junior high schools of one type or another are in operation at the present time. At the other end of the scale another institution has grown up in response to the demand for an upward extension of the high school, i. e., the junior college. The progress of this second movement has been relatively as rapid as that of the first mentioned. McDowell received reports from one hundred and five junior colleges in 1917–18.[2] In McDowell's report California is credited with eighteen junior colleges, of which fifteen are publicly supported. A recent survey shows that there are now thirty-seven junior colleges in California, of which twenty-seven are supported by the public. If anything like the same ratio of increase has been maintained in the rest of the states, there are well over two hundred junior colleges in the United States at the present time.

We find ourselves, thus, in the midst of a series of educational experiments, covering every possible combination of grades from the sixth to the fourteenth and claiming to be secondary in character. The nomenclature is just a bit confusing. Junior high schools may consist of grades six, seven, and eight; seven and eight; seven, eight, and nine; or seven, eight, nine, and ten. The senior high school may consist of grades nine, ten, eleven, and twelve; ten, eleven, and twelve; or seven, eight, nine, ten, eleven, and twelve. The junior college is a two-year institution, covering grades thirteen and fourteen, or the first two years of the present four-year college course, and requires for admission fifteen standard high-school units.

The net result of the struggle for readjustment to date has been a rather widespread recognition of the secondary period as covering approximately eight chronological years, thirteen to twenty, inclusive, and school grades seven to fourteen, inclusive. Also there is a dawning recognition of the right of an adolescent to be trained in an institution adapted to his needs, physical and mental. Both of the new institutions growing out of this movement for the upward and downward extension of the secondary school are still on the defensive, the junior high school against the eight-year elementary tradition and the four-year high-school tradition, and the junior college against the four-

[1]Briggs, Thomas H., *The Junior High School*, Houghton Mifflin Co., Boston, 1920, pp. 60–62.

[2]McDowell, *The Junior College*, Bureau of Education Bulletin, 1919, No. 35, pp. 120–23.

year college tradition. The rapid progress made by both types of school against these thoroughly intrenched traditions is a tribute to the virility of the progressive spirit in American education.

Experimentation in the reorganization of secondary education has now progressed to the point where it is pertinent to ask what the probable re-arrangement of administrative units will be. Will the junior high school and the junior college continue to develop along present lines? Will the four-year high school retain its identity? Will the four-year college course undergo material modification? What form will the university of the future assume? Manifestly answers to the above questions can only be in the nature of predictions and one prophet has as much right to his theory as another. But there are certain discernible tendencies, which, if examined, may throw some light upon the probable outcome of the reorganization movement.

The first tendency calling for examination is that which has to do with the breaking down of the eight-year elementary tradition. The conviction has been gaining ground for many years that the last two years of the eight-year elementary program were all but superfluous, and that they could be better employed as an introduction to, or an integral part of, secondary education. The marked success of the junior high schools and intermediate schools has ripened this conviction to the point where most school men are satisfied that elementary education can be satisfactorily accomplished in six years. Not all of the details of a satisfactory six-year elementary program have been agreed upon by any means, but the principle can be said to be fairly well established.

The second tendency, not perhaps so clearly perceived or so well authenticated, is toward the extension of professional training to cover four years. Time was when one might enter a law school upon graduation from high school and secure an LL.B. in two years. Now every standard law school requires at least two years of college work before permitting entry upon legal study, and to secure the LL.B. or the J. D. degree requires four years in addition to that. Most engineering schools require two years of college work before specialization, and then at least three years for the preliminary degrees and four or more for the professional degrees of M.E., C.E., E.E., etc. Medical education now requires six years beyond the sophomore year in college. Normal schools are becoming four-year teachers' colleges. In practically every line of professional training the preliminary requirements are being increased and the period of definite professional education lengthened.

If the tendency to lengthen specific professional training to four years has been rightly gauged, and if it may be assumed to be desirable that professional training should begin in the twentieth or twenty-first chronological year, it would follow that all secondary education should be completed by that time. This would mean a secondary period of eight years, covering grades seven to fourteen, inclusive. At present this requires two years or three in a junior high school, three years or four in a senior high school, and two years in a junior college, or two years in the lower division of a university. Since the present method involves three administrative units and breaks the continuity of secondary training twice during the eight-year span, it would appear to be a reasonable prediction that final reorganization will take the form of two institutions covering periods of four years each.

One of these institutions would embrace the seventh, eighth, ninth and tenth grades, and carry the average student through the sixteenth chronological year. A four-year, rather than a two-or three-year, intermediate or junior high school would give scope for a much richer and more varied program of studies. There would be greater opportunity for the development of institutional spirit or loyalty, because practically all of the pupils would be in the transition stage between physiological immaturity and maturity. Also during the four years there would be time for a better functioning of exploratory courses of study than can be had in a

two- or three-year school. Again, the growing tendency in this country is for the advancement of the legal school-leaving age to sixteen. A four-year school, beginning with the seventh grade and continuing through the tenth, would tend to hold all pupils to at least age sixteen, which is a much more satisfactory time to begin an apprenticeship for an occupation than age fourteen. If a break in the program of secondary education is at all desirable, the completion of the tenth school year is a more logical point to have it come than either the eighth or the ninth year, as at present.

The other four-year institution, to cover the complete eight-year span of secondary education, would embrace the last two years of the present four-year high school and the first two years of college work. This four-year junior college, as it might well be called, would have many advantages over the two-year type of junior college. As indicated in the case of the four-year intermediate or junior high school the four-year junior college would have a chance to develop institutional *esprit de corps*, because ninety to ninety-five per cent. of its students would be physiologically mature. This would permit a larger measure of social and disciplinary freedom than appears to be feasible in the four-year high school with its incongruous mixture of near infants and near adults. It would also be possible to develop and support every desirable form of athletic and social activity appropriate to the upper adolescent period of social and physical development. The proposed type of junior college would be more attractive to students and teachers as well, because it would no longer be a mere segment but a full-fledged, going institution, with separate buildings and equipment of its own and capable of maintaining interscholastic relations with other schools of like nature. Such an institution would enlist greater community interest and support, provide curriculums to meet community, vocational, and university preparatory needs, and ultimately qualify to take over entirely the first two years of college training.

Is there any present indication that such a reorganization would receive the endorsement and active support of the colleges and universities? The attitude of the adequately endowed, highly efficient, four-year, liberal arts colleges, would probably be antagonistic. With their large bodies of alumni, their long-cherished traditions, and their devotion to liberal culture, they would undoubtedly oppose any plan that meant segmentation for them. They would not necessarily be adversely affected by the proposed reorganization. Their place in American education is reasonably secure. Such institutions as Bowdoin, Amherst, Williams, Beloit, Grinnell, Swarthmore, Pomona, and Whitman are occupying effectively a definite field, and there is no reason to suppose that the type of educational service that they render will be any less in demand under the proposed plan of reorganization than it is at the present time. As a matter of fact, every one of them is limiting the number of students it will receive and has a waiting list of applicants for admission. They can at least afford to be neutral in the discussion.

The inadequately endowed, poorly equipped, four-year colleges, with overworked and underpaid teachers, which constitute about sixty-five per cent of the collegiate institutions of the country, are in a different situation from that occupied by the colleges mentioned above. They have to face the problem of increasing costs in salaries, upkeep, and supplies, as well as the upward trend of accepted standards of college work. To these institutions the four-year junior college idea offers a solution of many of their difficulties. It would be to their advantage to attempt only the last four years of secondary training and leave to the universities the last two years of the present college course. That many of them have already seen the light is shown by the fact that of the one hundred and five junior colleges reporting to McDowell in 1917–18, seventy-five, or 71.4 per cent, were under private control, and a majority of these were small colleges which had voluntarily abandoned the attempt to

do four years of standard college work and had become junior colleges.

The spread of the public junior college on the four-year basis would mean that many small colleges now attempting to do college work would be eliminated entirely, while the remainder, unless adequately endowed, would become junior colleges of the four-year type. They would then be in a better position to deliver the goods advertised in their catalogues, and to render honest educational service on the basis of which they could ask for and would no doubt receive renewed public support. Many parents, who would prefer to have their children under proper religious influence and close personal supervision during the entire adolescent period, would be inclined to send them to the junior colleges with denominational affiliations, provided the educational advantages offered could be brought up to a high standard of efficiency. A constantly increasing stream of students would thus be turned toward the privately controlled junior colleges, which would not only give them a new lease on life, but enable them to render a distinct and much needed educational service.

The attitude of the universities toward the four-year junior-college idea is, of course, not known, because the idea itself has had very little currency. But the junior-college idea *per se* has been advocated for thirty years or more by leading university presidents, such as Harper of Chicago, Butler of Columbia, Barrows of California, and Wilbur of Stanford. Chancellor Emeritus David Starr Jordan of Stanford University said nearly ten years ago:[1]

> I am looking forward, as you know, to the time when the large high schools of the state in conjunction with the small colleges will relieve the two great universities from the expense and from the necessity of giving the instruction of the first two university years. The instruction of these two years is of necessity elementary and of the same general nature as that of the high school itself. It is not desirable for a university to have more than two thousand students gathered together in one place, and when the number comes to exceed that figure then some division is desirable. The only reasonable division is that which will take away students who do not need [great] libraries, or [extensive] laboratories for their work. The value of the university is highly dependent on its possession of great and extensive libraries.

[1] Johnston, C. H. *The Modern High School.* p. 832.

Similar sentiments to those expressed by Doctor Jordan have been voiced by the other university presidents mentioned. They have been led to take a position favorable to the organization of junior colleges on account of the situations created in their own institutions by the "annual cloud-bursts" of freshman and sophomore students that descend upon them.

One type of attempted solution has been the organization of Junior and Senior Colleges, or Lower and Upper Divisions, within the universities. In these lower-division sections the effort is made to give the student a kind of wholesale educational guidance and to see that he gets a broad liberal foundation before entering a major department or professional school. The entire lower-division system is a reversion to the narrow, prescriptive type of collegiate training, from which we thought we had been forever freed under the leadership of President Eliot. But it is a measure of self-defense and a more or less effective administrative device for handling masses of immature students in wholesale lots, and will be retained by the universities just so long as they continue to be quasi-secondary schools.

The next point of inquiry has to do with the extent to which the rapid multiplication of two-year junior colleges has relieved the universities of their secondary burden. The reply must be that, in spite of the very general acceptance of the junior-college idea by the university leaders—in spite of their generous coöperation in the organization, development and recognition of public and private junior colleges—the number of freshman and sophomore students in the great universities has increased out of all proportion to the increase of students in the junior colleges. In California, where the public junior college of the two-year type

has had its greatest development, there are 2,146 students in the twenty-six junior colleges connected with high schools and teachers' colleges.[1] On the campus of the University of California at Berkeley alone, not to mention the University of Southern California and the Southern Branch of the University of California, there are about sixty-five hundred freshman and sophomore students, or more than three times as many students as are found in all the junior colleges combined. The increase of junior-college students, therefore, has not begun to keep pace with the increase of first- and second-year students in the colleges and universities for the past five years.

We are forced, in the light of the facts stated above, to face the question as to whether the junior college in its present form, i. e., that of a two-year institution, will ever be able to attract and hold the two hundred thousand freshman and sophomore students now over-crowding our American colleges and universities. The universities cannot be expected voluntarily to eliminate their lower division sections until there is a reasonable prospect that other competent institutions are ready to take over and perform the task in an acceptable manner. The fact that the junior colleges have not gained relatively upon the number of first- and second-year college students, in spite of the rapid increase in the number of junior colleges of the two-year type, is an indication that some change will have to be made in the form of organization of the institution itself before it can hope to relieve the universities of their burden of secondary training. The change, already suggested, to a four-year institution embracing the last two years of the present high school and the first two years of the present college and university, is the one most likely to meet the demands of the situation.

There are certain practical implications in the proposal to cover an eight-year secondary span with two institutions, each offering a four-year program of studies. The present four-year high school would eventually disappear. In communities able to support four-year junior colleges the combination would be six years of elementary schooling, four of intermediate, and four of junior college. In small-town and rural communities a sufficient number of districts would be consolidated to have schools on the 6–4, or the 6–6 plans, sending their students beyond these limits to the larger communities for advanced training of all kinds. The large high-school buildings, already erected and superior in equipment to all but the best four-year colleges, would adequately house the four-year junior colleges. Most of the junior high-school buildings of recent construction could be adapted to a four-year program, but it would be necessary materially to increase the number of such buildings to meet the new demand.

The four-year junior college would become a real community institution. It would bring the benefits of higher education to hundreds of thousands who now lack the opportunity on account of territorial location. It would mean that during the entire adolescent period educational advantages would be provided at or near one's home. Curriculums could be provided which would meet the needs of those who desired preliminary training for commercial, industrial, and semi-professional occupations, as well as for those expecting to continue liberal or professional studies in the universities. The cost of such training would lie somewhere between that of the best high school and that of university training, and would be much more evenly distributed than is now the case.

The proposed re-organization would bring about a fundamental change in the character of our American universities. Relieved of their present incubus of secondary training, they would become universities in fact as well as in name. That is to say, they would become collections of colleges for advanced liberal arts and professional training, and would require completion of the four-year junior-college course for admission. The selective function of the junior colleges

[1] There are fifteen hundred junior college students in the Southern Branch of the University of California, but they are in the same class with lower-division students at Berkeley.

would result in sending to the universities only such students as knew where they were going and why they were on the way. Entire freedom of election of courses in the academic college and the professional schools could safely be permitted. It might even be possible to do away with the present system of university book-keeping, which encourages students to think of courses in terms of marks and units of credit rather than in terms of knowledge gained or thought power stimulated. Smaller student bodies would mean that financial resources and administrative energy now devoted to providing recitation halls and instructors for the sixty per cent. of secondary population, could be utilized in securing and holding the highest type of specialists, research men, and teachers of commanding gifts for the advanced academic and professional schools. A much larger proportion of these funds than is at present available might also be devoted to advanced scholarships and research fellowships. If such a transformation in the character of our universities ever becomes an accomplished fact, we may look forward to the time when scholastic honors are as eagerly sought by college and university students as social and athletic honors now are. It is even thinkable that university presidents and distinguished scholars among university professors might become as well and favorably known among university students as famous foot-ball coaches are to-day.

The proposed four-year junior college may well become the key institution in the re-organization of American education. It would enable the eight-year span of secondary training to be covered by two institutions instead of three as at present, and obviate the necessity of two breaks in the continuity of secondary training. With the secondary training of adolescent youth adequately provided for, the universities could enter into their own as centers of graduate study and professional education, having students of physical and mental maturity taught by the men of greatest distinction in their respective fields, and achieving results more in proportion to ability and opportunity. The recent rapid rise of the junior high school and the junior college gives wings to the hope that such re-organization may be accomplished within a generation.

THE CASE METHOD IN THE STUDY OF TEACHING[1]

WILLIAM P. BURRIS

WHAT is the "case method"? In what fields is it employed or proposed, and for what reasons? Are these reasons educationally sound? If so, is the method, for the same reasons, applicable to the study of teaching, and how can it be applied? What is its proper place in the professional education of teachers, and what are its values? These are the questions which I propose for such consideration as space will permit.

In one of the Lowell lectures on "The Evolution of Man," delivered at Boston thirty years ago, Henry Drummond tells us:

> Science for centuries devoted itself to the cataloguing of facts and the discovery of laws. Each worker toiled in his own little place—the geologist in his quarry, the botanist in his garden, the biologist in his laboratory, the astronomer in his observatory, the historian in his library, the archeologist in his museum. Suddenly these workers looked up; they spoke to each other; they had each discovered a law; they whispered its name. It was the same word that went round. They had each discovered Evolution.

The situation in recent decades with respect to teachers of the applied sciences and of the so-called normative sciences is quite parallel to that which Drummond so aptly summarized. They have been trying, independently of each other, to find a method

[1] A paper read before the National Society of College Teachers of Education at Cleveland, Ohio, February 28, 1923.

of procedure in teaching such sciences, which is more effective than the old ways. They have now begun to speak to one another; they have discovered the same thing; they have given it the same name; they have called it "The Case Method."

The first to speak articulately was Dean Langdell of the Harvard Law School some fifty years ago; and since that time the lecture and text-book methods of teaching law have gradually given way to the case method of teaching this subject. To-day it forms the principal, if not the exclusive, method of teaching law in all of the important law schools of this country. Lectures on special subjects are, of course, still given in all law schools, and this will doubtless always be so, but for instruction in all of the important branches of common law the study of cases has proven the most effective method of training for the practice of law as well as for giving a firm grasp of what the law itself really is. In some law schools, especially those which cram students for bar examinations, law is still taught by lectures and text-books, but if it cannot be said that students in such schools work to no purpose, it is certain that they can work from the wrong end. It cannot be otherwise, for in such a method of study the rules are learned without the reasons, or both rules and reasons are abstract statements that have little meaning. On the other hand, the case method of studying law emphasizes the scientific character of legal thought, and just because law is a science and not a collection of arbitrary rules and regulations, it should be studied scientifically.

From this point of view the old method of teaching law was inadequate to develop the power of legal thinking and to make legal principles really intelligible to students. As Redlich[1] says:

> Consequently, as the (case) method was developed, it laid the main emphasis upon precisely that aspect of training which the older text-book school entirely neglected—the training of the student in intellectual independence, in individual thinking, in digging out the principles through penetrating analysis of the material found within separate cases; material which contains, all mixed in with one another, both the facts, as life creates them, which generate the law, and at the same time rules of the law itself, component parts of the general system. In the fact that, as has been said before, it has actually accomplished this purpose, lies the great success of the case method. For it really teaches the pupil to think in the way that any practical lawyer—whether dealing with written or unwritten law—ought to and has to think. It prepares the student in precisely the way which, in a country of case law, leads to full power of legal understanding and legal acumen; that is to say, by making the pupil familiar with the law through incessant practice in the analysis of law cases, where the concepts, principles, and rules of Anglo-Saxon law are recorded, not as dry abstractions, but as cardinal realities in the inexhaustibly rich, ceaselessly fluctuating, social and economic life of man.

[1] Bulletin No. 8, Carnegie Foundation for the Advancement of Teaching.

The next distinctly audible voice in favor of the case method came from the field of medicine. So far as I have been able to discover, it was that of Dr. Richard C. Cabot of the Harvard Medical School. The first edition of his book on *Case Teaching in Medicine* appeared in 1906, and it contained "A series of graduated exercises in the differential diagnosis, prognosis, and treatment of actual cases of disease." In the preface of his *Differential Diagnosis*, which appeared in 1911, he states that his purpose is "To give practice in thinking and working one's way into the mastery of a case of disease through the intelligent verification of our thoughts by physical examination." He says, further, the book follows "the method of case teaching, which I have used for eight years at the Harvard Medical School, applying there a method long employed at the Harvard Law School."

Such a method of training the medical practitioner, in one form or another, is now commonly found in all of the best medical schools. The most common variation of it is called the "clinic," but as often conducted it does not mark any very great advance over the old lecture and text-book methods. Sometimes it is purely didactic, the students being told what they would find and what they should do if they should find it. Some-

times it is demonstrative, in which event things are pointed out in the amphitheater or the wards of a hospital, and those students who get front seats see them more or less clearly. In the best practice, however, students are required to bring their own powers into play at close range, gathering their own data, making their own interpretations, proposing their own courses of treatment, and taking the consequences when the instructor calls them to account in class.

In his report on *Medical Education in the United States and Canada*, made to the Carnegie Foundation in 1910, Dr. Abraham Flexner says:

> Some ingenious Harvard men, profiting by the experience of the Harvard Law School, have evolved an effective discipline in the art of inference. Just as a preliminary course in physical diagnosis, teaching the student how to gather his facts, is valuable, so, it is urged, a formal training in the inductive handling of ascertained data may be of use to students whose logical habit has been none too strictly formed. "Let us assume such and such data: what do they mean? What would you do?" This is the essence of the case method —a method, by the way, excellently adapted to class use, calculated there to develop the friction, competition, and interest which are powerful pedagogical stimulants.

Next, in order of time, spoke the Graduate School of Business Administration at Harvard, and although there seems to be a preference for the name "problem method" instead of "case method," the chief difference lies in the fact that the student works largely with plans for conducting some proposed business undertaking instead of with records showing how some business organization has actually been conducted. In the absence of recorded cases of real business administration for purposes of study, what is, after all, case study, can be conducted to advantage in this way, but it is as different as the study of a lesson plan is different from the study of a lesson performance. It may be said, in passing, that there is no head-on collision between them.

The next voice came out of the World War. It was from the engineering school at Camp Humphreys, and it was a response to the emergency which called for efficient engineers in large numbers in the shortest possible time. A description of how this call was answered is found in the report on the methods employed in this school, published by the War Department, and in the report of a post-war conference of engineers held at Washington, published by the Bureau of Education in 1919. Employing the method with which Prof. C. C. More of the University of Washington and others had been experimenting for several years in that and other institutions, the primary purpose was to stimulate and encourage the student of engineering in the exercise of his power of independent thought, reasoning, and judgment, and to increase his ability to cope with new situations when confronted with them in engineering practice, instead of providing him with a fund of engineering information and abstract theory. With this object in mind, the student was plunged into a study of cases of engineering construction from the start. He was required to analyze and solve concrete engineering problems based upon these cases instead of covering a set amount of text-book material. In doing so, mathematics, physics, and other sciences were introduced as "tools" as they were required, thus giving to the so-called academic subjects a vitalizing motive. The results here, also, showed that the most effective way to master an applied science is by studying it in its applications; that it is only by the close study of experience and the solution of problems which arise out of it that one can best develop the power to solve the problems which are met in the practice of such a science; and that such a procedure is, in fact, the method of science.

Within the past year there has been quite a showing of hands, with many voices heard in many different fields. Since I broadcasted my mimeographed proposal to apply the case method to the study of teaching, on November 15, 1921, we have heard of case method for the study of ethics, case method for the study of civics, case method for the study of logic, case method for the study of social science, case method for the

study of educational psychology, case method for the study of economics, and even case method for the study of preaching. As recently as last June another Harvard man, Prof. W. M. Davis, in his notable Phi Beta Kappa address on *The Reasonableness of Science*, makes an earnest plea for the scientific study of the natural history of goodness in the hope of finding something better than the hope of reward and the fear of punishment as means of improving the world.

What has been said in behalf of the case method in other fields, applies with equal force in support of it in the study of teaching. That it is educationally sound there can scarcely be a doubt. The shortcomings of our work in the study of teaching are precisely the same as those which case study has corrected in the fields where it has been tried. Bagley, in the study of *The Professional Preparation of the Teacher for American Public Schools*, made for the Carnegie Foundation, states:

> No one has yet definitely formulated a body of doctrine which can be given to a young teacher with the hope that, through its application, he he will be able to solve all of his problems successfully. The fact that the preliminary study of educational theory has often either no influence, upon later practice, or an unfortunate influence, has been pointed out again and again. This is not so much an indictment of theory as an indication that the theory has come at the wrong time, has been approached in the wrong way, and has been directed, so to speak, toward the wrong end.

As a corrective of this defect, he refers to the possibilities of the case method "which has been applied with most notable success in other types of professional education, particularly law and medicine." He says further:

> This does not mean that the course (in the principles of teaching) should exclude educational theory, or that it should return to the status of the old-time, rule-of-thumb "pedagogy"; it means rather that theory should emerge from the study of actual practice and not be imposed as a set of fundamental principles from which valid precepts of practice can be deductively derived; it means that the student should from the outset be placed in a position where he will be stimulated to think out for himself the reasons for the success or failure of this or that practice.

It was this same situation that led Professor Whipple to prepare his *Problems in Educational Psychology*, recently issued as an "adaptation of the case method." There has long been complaint by students of educational psychology that it fails to "carry over," and even good students, whose knowledge of the facts and principles of psychology is excellent, when tested by the ordinary recitations and examinations, frequently fail to make use of them when actually confronted with psychological problems in their work as teachers. Hence the study of "cases" in order to furnish practice in recognizing the facts and principles of psychology involved in a great variety of concrete teaching situations. Another "adaptation of the case method" is found in Stapleton's *Your Problems and Mine*. In the preface he distinctly declares that "it is a teacher's case book." Doctor Buckingham has set the machinery of his Bureau of Educational Research to work in collecting cases and Doctor Hosic through the *Journal of Educational Method* is doing the same thing. Records of individual pupils as well as of class exercises are appearing in the *Elementary School Journal* and elsewhere, and it is only a question of time when we shall have the wealth of concrete material necessary for the method of study which has proven so fruitful in other fields.

Our lectures and books on teaching give us answers to the question, "What should be done?" in various real or imaginary situations—mainly the latter. They do not give us adequate and accurate records of units of actual teaching and ask students independently to analyze and evaluate them. Consequently, they lack the flavor of reality and the stimulus of a challenge to thought and action. To be sure, our books and lectures on teaching do frequently abound with illustrations, especially if they are propagandist in character, and it is thus that we indicate whether we are disciples of Herbart,

Dewey, or Montessori, or whether we are exponents of the project method, the socialized recitation, the Dalton plan, or the plan at Gary. But cases that the student of teaching is called upon to analyze and evaluate are not mere illustrations, for it is the student and not the teacher who decides what the cases illustrate. The case method, therefore, is the scientific method, for it is the method by which the student is brought face to face with concrete experiences, from which somebody has learned something, or from which something may be learned, provided such experiences are studied with diligence. "Experience is the teacher of fools," said Livy long ago, and we seem to act too often as if this were true. What he really meant was that fools must learn by experience if they learn at all. Sometimes they do not, and therefore remain fools. Mere experience never taught anyone. It is experience about which we think that makes us wise; hence it is the thinker, and not the fool, that profits by experience—his own or that of another.

Those who have made extensive use of the case method in other fields tell us that it keeps large classes of students interested and busy. If you are a good lecturer you can interest a large class of students, but you do not necessarily keep them busy. Most of them will be passive recipients of what you say. You do most of the work, and it is therefore of great profit—*to you.* You may toss a question at the class now and then but the effect produced upon most of its members will perhaps be merely a temporary uneasiness. Not so, however, when each member of a large class has his own specimen in the form of an accurate case record, and is expecting to be called upon at any moment to analyze it, to make decisions upon it, and to justify his conclusions. In such a method of procedure you cannot control cases as you control the illustrations in your lecture. You cannot tell how a case will behave in the presence of a large class whose members have made a careful study of it in advance. As Doctor Cabot tells us, "A case may rear, kick up its heels, and run away." The students may make surprising interpretations, raise most unexpected problems, and thus enliven the hour by questioning you as you question them. It is then that you may hand out your wisdom, but you may be sure that the students will check your statements by the facts. And if, in the end, there should be differences of opinion, it matters not, for it is thus that the powers are developed which a teacher will need in the solution of his problems, and whether there is agreement or disagreement, the facts are there to show what it is about which you agree or disagree. Your main business is to egg students on, and to suggest both the "tools" of analysis and the "tool" subjects for solving a teacher's problems. Difficult at first, the student will with practice come to use these "tools" automatically, and when this time arrives he has begun to think *like* a teacher and he will therefore become able, with practice, to think *as* a teacher.

We need, therefore, as material for the study of teaching, many volumes and a great variety of trustworthily recorded cases of teaching, so that one who plans to teach may come to close grips with experience. Such records must include much more than stenographic reports of teachers' questions and pupils' answers, valuable as these are as far as they go. A complete "case" calls also for the record of an expert observer as well as that made by an expert stenographer; it must tell us the location of the school, the physical conditions under which the exercise was conducted, and the character of the pupils with whom the teacher had to work; it must contain an analysis of the teacher, showing wherein he was obviously strong or weak, personally and otherwise; it must tell us what the reactions of the pupils were; it must tell us the place of the exercise in relation to what went before and what is to come after; it must, in short, by accurate description, and measurement when possible, tell us every essential fact which may in any way account for success or failure.

The direct observation of lessons by students in large numbers or groups, for purposes of such study as we have indicated, is impracticable, except to a very limited ex-

tent, for many obvious reasons. Moreover, when the criticism of such lessons follows immediately, students give snap judgments and perfunctory comments. They are afraid of offending the teacher; they have not had time to think the lesson over carefully and to bring the "tools" of critical analysis into play; they have not had time to evaluate the lesson in the light of psychology and other "tool" subjects; and if the criticism of such lessons is deferred, important points are forgotten, unless some such complete record has been made as I indicated above. On the other hand, collections of accurately reported cases can be studied deliberately and criticized freely; they need not be limited in time, place, or number; they economize the time of all concerned; and they are otherwise more desirable.

In the study of such case records the student, at the beginning, will need the assistance of some form of control chart. The exact form of it cannot be determined *a priori*. The nature of it, however, may be suggested by certain questions and instructions by which he is to be guided: Make a gross analysis of the case. Is your impression favorable or unfavorable? Is the record of the expert observer consistent with that of the stenographer? Is there reason for questioning the validity or the insufficiency of either record? How would you classify the exercise? Upon what, mainly, did the teacher rely for success? Was the teacher primarily concerned in teaching the book, or in teaching the subject, or in the motivation of the work in hand, or in utilizing the purposes of pupils for his ends? Was the method well adapted to the exercise? With what degree of skill was the method used? Make a list of probable causes of success or failure as indicated by the records. Work out explanations of successes or failures by an appeal to psychology or other subjects. How could the exercise have been improved? And so on.

Pursued in this way, the study of teaching becomes scientific in character, for it involves the same procedure as that employed in pure science—observation, reasoning, decision, and verification. It does not lay down "fundamental principles" in books or lectures and then find illustrations that seem to support the presuppositions with which they set out. It studies experience, with the endless variations that time, place, personalities, and other conditions produce, in order to understand and to adapt one's self as a teacher to such variations when they are met in one's own experience. It is thus a vicarious experience by which we learn how to behave in this relation. Moreover, it reveals, as no other method of procedure can, what knowledge in the arts and sciences is necessary as "tools" in solving problems in this field.

The case method, however, does not mean that other professional studies, including observation, lesson-planning, and practice teaching shall be discontinued. It does mean that there shall be a change of emphasis and a rearrangement. Case study will run throughout the professional course, parallel with other studies, as the means of giving to each its proper emphasis and significance. The student will thus have some idea, from the beginning, of what he is about and while his power to solve problems may at first be feeble, his shortcomings will reveal to him what he needs to learn in other fields in order to master his difficulties. He will grow in power of observation by learning what to look for; he will grow in power to plan lessons by learning what to anticipate; he will grow in power to teach by learning how to apply his knowledge; and when in difficulties he will know how to think. And thus will we, who undertake the professional education of teachers, be practising that educational doctrine which we have been preaching from a thousand platforms.

THE ART EDUCATION WE NEED

LEON LOYAL WINSLOW

INDUSTRY is interested in art primarily from the commercial side and it seeks to obtain skilled designers and craftsmen who can produce salable products. The manufacturer hesitates to put out for the market a product that he thinks may not appeal to the average buyer. He fears lest he may overreach the public taste. Although he may employ a trained designer and trained craftsmen, he all too frequently declines to place on the market the most beautiful patterns that his designer produces. It is too often the manufacturer's opinion that the products which are best esthetically will not be appreciated and purchased by the public at large. He fails to recognize that public taste is often superior to industrial taste, which is bound to be a fact so long as industrial "art" remains in the clutches of the machine. It is also to be regretted that many of the designs that are best esthetically must still be rejected, and others ruined by modification, in order that they may meet the requirements of reproduction by mechanical means. If art is ever to assume the place in industry it once occupied, either the machines must be so improved as to meet the requirements of the best design, or else our designers must learn the possibilities and limitations of the machines in order that they may adjust their design to the conditions imposed without sacrificing any of its inherent beauty.

Apparently there has been a conflict between art and *industrial* art, and the machine has been to blame. There was a time long ago when fine art and industrial art were regarded as synonymous terms. Then all craftsmen were considered artists and all the artists were real craftsmen. The painter was a cabinet maker, a metal worker and an architect at one and the same time. It has been only in modern times that we have thought to take the artists' paintings from the walls, place them on easels and speak of them as works of Fine Art. The machine was destined to come between the artist and his art, and for a time the artist was bewildered. A cry was raised against the machine as the titanic destroyer of art. Its first artistic efforts were failures. Men had not learned its limitations nor had they realized its potentialities.

We have at last come to realize that the machine itself is a true friend of art and that its very limitations may indeed constitute its saving grace. The tendency of the medieval craftsman was to over-decorate, a crime of which the machine is of itself incapable. Under the dominating influence of the machine the emphasis in art has most appropriately shifted back again from decoration to structure, from the ornamentation of an object of utility to the inclusion of the entire creation of the object itself.

It is most important that the modern designer of industrial products should possess a background of historic art information in order that he may work intelligently, adopting and at the same time adapting the best practice of all time, profiting by the errors and utilizing the correct forms ever in new ways where occasion demands.

There is a tendency on the part of the skilled technician uninformed on the broader aspects of his art to make use of ancient forms directly rather than to see beyond them to their source in realism. The most interesting and the most beautiful designs of former times were inspired by nature. The modern designer who would contribute most to the art of his own country and time must in like manner return to nature for his direct inspiration for new forms. Historic examples will be of inestimable help to him in pointing out the paths that may safely

be followed and those that should be avoided.

The excellent collections now available in our modern art museums constitute an ever-increasing source for suggestive material. They should be studied exhaustively and systematically. Unless the student approaches these historic examples with a definite purpose in mind other than a desire to copy or to modify, we may never hope to develop here in America an individual art that will be in any way an improvement over what has been done by other nations.

It is not enough that the prospective designer should be acquainted with design in the abstract. He must visualize his design in the two or in the three dimensions. He must *feel* his materials. He must realize their limitations and their possibilities. Proportion, structure, contour, and surface must be considered simultaneously with color and the arrangement of parts.

Education should seek ever to propagate and perfect a higher type of art, should teach the public to appreciate it and to demand it and should train designers and craftsmen to produce it. This will involve the combined efforts of all types of schools. To this end, the elementary school must contribute its foundation in drawing, construction, and appreciation; the intermediate or junior high school, its appreciation and semi-specialized information and skill; the senior high school, its deeper appreciation and more fully specialized information and skill; the evening school, its practical instruction for the workers employed during the day. The recent report of the Industrial Art Survey[1] indicates the need for day schools of industrial arts in which highly specialized instruction is offered for the preparation of prospective designers and craft workers. In all types of schools much emphasis will have to be placed on materials and their transformation into finished products.

Back of the entire system of art education there must be set up a thoroughly effective system of teacher training capable of supplying directors, supervisors, and special teachers for all of the various types of schools enumerated above. Courses in drawing and handwork in the state normal schools will have to be re-organized to meet the new demand for instruction in the elementary grades; the two-year teacher training courses in our special art schools will need to be modified to meet the new requirement for supervisors in the elementary and secondary grades; the college degree courses in art education will need to be changed to include an emphasis of the industrial arts; the graduate courses will need to be permeated by the spirit of scientific art research. Special classes will have to be established for the training of teachers of vocational industrial art. Scholarships must be founded to enable the talented pupils from our secondary schools to pursue advanced work either in the special vocational schools or in the colleges and universities, and our large manufacturers will have to be convinced of the imperative necessity of founding industrial art scholarships for the improvement of their designers already in service.

The importance of the work of the elementary school in the general scheme of art education is often underestimated. If the secondary schools are to function as they should, it is essential that a thorough foundation be laid in the elementary schools.

The importance of industry in modern life demands that an industrial emphasis be placed upon much of the instruction offered. A subject designed to meet the industrial needs without in any way neglecting the esthetic side has already earned a place on many elementary school programs. The study attempts to combine drawing and construction and to motivate all by a subject matter relating to industry, for it must be remembered that art quality will never sell a product if the consumer is to remain ignorant of what constitutes the art quality in the products of industry. The standard of our "democratic American art" must be raised, that the man of moderate income may find

[1]The Industrial Art Survey conducted under the auspices of the National Society for Vocational Education and The University of the State of New York, 1921-1922. Report distributed by the Macmillan Company, N. Y

pleasure and satisfaction in form, color, and line, as these are made use of in products of reasonable price. *Industrial art* treats of the transformation of the various common industrial raw materials into finished products, it assures more effective instruction in art, and it makes possible a considerable saving of time in an already overcrowded curriculum.

Try as we may to provide one subject in the elementary school course that will entirely take care of art instruction, we shall not succeed; to be taught effectively art must be included in all subjects—in language and in geography no less than in a study of the industrial arts. There must be created within the school an art atmosphere.

One used to hear a great deal about the value of nature drawing, object drawing, illustration, and construction in the elementary school course, much as if these activities were ends in themselves. To-day handwork is considered as a means to an end, a help in putting across a body of human experience of sound educational worth. Drawing and manual training have in our day come to have a rebirth in industrial arts, for both have gained distinction in the eyes of school men who are able to see in industrial arts much of educational worth that was not recognizable either in drawing or in manual training heretofore.

There must still be nature drawing of course, but it will have a purpose; there must still be object drawing, but it will be made significant; there will be illustration, illustration filled with meaning and with purpose; there must still be construction, more of it than ever before, but all this activity will be carried on with a consciousness upon the pupil's part of its pragmatic value and of its place in the great world outside the schoolroom's walls. There will be more art, because art will come as the reward of spontaneous self-expression in a field sufficiently restricted to make effective expression possible.

In the intermediate or junior high school pupils should be given an opportunity to elect subjects best suited to their capacities. There is, nevertheless, a place for a generally required subject called "art" on the common program, art as a cultural subject to be included in the regular course along with English, history, science, mathematics, music, and physical recreation. There should also be provided a special course in industrial art for those desiring to elect it.

Art as a general subject in the junior high school should have as its aim the dual purpose of acquainting the pupils with the masterpieces of the arts of all peoples and periods, and of furnishing a background of information and experience sufficiently practical to be of real value in educational and vocational adjustment with the American boy and girl as the objectives and general education as the aim. Instruction should be concrete, historic examples studied for the sake of comparison with modern works to the end that the esthetic principles governing their production may be discovered and application made of these continually in the carrying out of new products. The pupils will need to be taught that art value is in no way affected by rarity, period, age, or source; that art value is determined esthetically, and that, in the eyes of esthetics, the art of ancient Greece, medieval France, and modern America is as one.

As regards vocational and educational guidance, art must be studied not only as it relates to painting and sculpture, but especially as it is made use of in advertising, costume, jewelry, printing and publishing, furniture, wall paper, textiles, architecture, and the decoration of interiors, in order that the pupils may become acquainted with the opportunities offered in the so-called "art industries" for profitable and pleasurable employment.

The special art course in junior high schools will represent for this type of education the industrial art field as opposed to the professional, commercial, or agricultural divisions. It will carry on in a more intensified way the kind of instruction described for the general course, aiming to furnish a foundation in content and skill upon which the senior high school can build most ef-

fectively. The course should be based on specific art subject matter involving representation or perspective drawing, design including color, and some mechanical drawing and craft work. Pupils on completing such a course should be qualified to enter the advanced courses for which provision is made in the senior high school.

Much valuable instruction in vocational art is already being offered in many of our cities in the form of advanced elective high-school courses. Such an elective system admits of specialization to a considerable extent. The instruction offered is intensely practical and the instructors are for the most part experienced commercial designers and craft workers. The time is not far distant when sequential required courses for senior high school pupils specializing in art will be the rule rather than the exception in the majority of our larger cities. A six-hour school day in which half of the time is given to so-called "practical work" and the other half to general and related subjects, should place this high-school art instruction on a sound vocational basis when judged by the accepted legal standards.

A proper balance must be maintained between general art education on the one hand and special or vocational art education on the other. The universities must continue their researches into art theory and art history. Color must be measured scientifically, form represented with absolute correctness, harmonies in arrangement produced with sincere accuracy. Books setting forth the results of these "higher" investigations will need to be written in non-technical language that all may understand. That theory is indeed ineffective which is not available for use.

The reorganization of work and the change in emphasis suggested above are only a beginning. There must sooner or later be established a group of special schools for the industrial arts that will eventually be capable of training an adequate number of designers and craftsmen to plan and create the kind of industrial product that the American child is already being taught in the public schools to appreciate and to demand. It is unlikely that European training can develop the kind of industrial art that America must produce, if she is to hold her own in the international competition for commercial leadership that is already upon her.

The special school of industrial arts, supported from public funds, administered by the government, and controlled largely through a professional advisory board, the members of which have been selected from the industrial art trades, is the *desideratum* both of education and of industry. Progress must ever continue to be toward this idea, which can be realized only through the unified efforts of all the agencies concerned. It is not enough that industry, art, and education should strive for it. They must strive together; but back of all this must ever lie the controlling force of public opinion.

Coöperation must work two ways, from the industrial and art interests, if you please, down to the people and from the people up to the legislative governmental agencies by which desires are expressed in the form of laws. When the people desire to see a national school of industrial arts established it will be established. Nothing at the present time would do more to advance the movement to establish such a school than a concerted effort, on the part of the people, the industrial and the art interests taking the initiative, to coöperate in a tremendous campaign of education in this direction. We can conceive of the schools, the museums, the art associations, and the labor organizations, all working together harmoniously in such a campaign to win for the United States of America the place in the industrial world to which the quality of her citizenship justly entitles her. The greatest need at the present time is for leadership in this movement.

THE PROGRESSIVE TEACHER'S ATTITUDE TOWARD NEW THEORY AND PRACTICE

STUART GRAYSON NOBLE

IN EDUCATION to-day we are in the midst of the age-old struggle between progressive and conservative forces. The history of civilization is the chronicle of this hereditary conflict. First one and then the other of these forces has had an inning; each has scored a momentary triumph, only to yield place later to the other. The progressives are to-day having their inning. The giant task of preparing for the rule of democracy has been suddenly thrust upon the schools. The public is interested in education to an extent never before equalled in the history of the world. Children throng the schools and material equipment is provided with a lavish hand. Animated with the spirit of American business, the public is urging the school to secure results by the shortest way. Teachers, meeting the new situation, in imitation of the enterprising manufacturer, are scrapping old equipment, and substituting new methods for old. The traditional to-day is ill-favored; the latest is the best. Teachers who stand for things as they are, are warned that they are old-fashioned; teachers who welcome change are commended for keeping abreast of the times.

Many thinking teachers are in a quandary as to the attitude proper for them to assume toward new theory and practice. Some who received their training a decade or more ago are being called upon to modify, if not discard, their pedagogical beliefs. Some cling tenaciously to the educational doctrines of their youth; some have discarded all that they once believed. Some follow after every new bubble set afloat by the experimenters, hardly knowing what they believe.

As for the teachers now in process of receiving their training, few are able to secure a comprehensive view of education. Specializing narrowly along the lines of a particular subject, they may not have opportunity to consider the place of their chosen subject in the field of education; or, busy with the study of tests and measurements, projects, and the newer contributions to education, they learn to view with disdainful scepticism the goodly heritage of the past. The narrow-minded, intolerant conservative may, at the sacrifice of fame and place, still cling to his outworn creed; the shallow opportunist, mistaking change for progress, may upon the slightest pretext embrace the new and lay the old aside: but thoughtful teachers are neither so narrow nor so shallow; for them the unstable condition of modern education constitutes a real problem; before them looms a giant question mark.

The study of the history and philosophy of education can alone provide the thoughtful teacher a way out of his dilemma. Many educators are under the delusion that we are now in the midst of a revolution in education, that we are breaking with the past and launching out into an uncharted sea. Such is far from being the case, as we shall presently see. There are certain thought-currents springing from sources in the remote past that have been moving with cumulative power toward the present. These thought-currents have at times been arrested by the conservatism of an age and at times they have passed out of view—as into a subterranean channel—only to reappear with increasing force. Thought-currents operating at the present time in almost every instance have come to us with an extensive history. It is too much to expect that a thought-current having its origin in the present age will reach high tide in the generation in which it began. Much that is

apparently new is the old recurring in a new form.

An essential element in the make-up of a modern teacher should be the ability to distinguish between what is permanent and what is fleeting and transitory in educational theory and practice. Such ability is derived from a sound philosophy built upon an intimate knowledge of the past. The student of education is safe in sanctioning as permanent only such ideas and practices as have come to us in direct line of evolution. Old ideas coming to us in a new form, according to our experience with them, may be accepted or rejected upon recognition. On the other hand, our attitude toward ideas of recent origin should be open-mindedly hospitable, but pitilessly critical. Frauds have so frequently been perpetrated in the name of progress that it behooves wise teachers to look well before they leap. To be led astray by passing fads and fancies is the penalty for failing to distinguish between what is true and what is merely plausible. Indeed there is but one lamp, and that is the lamp of experience; scanned in the light of recorded experience, what is true and abiding tends to separate itself from what is fleeting and transitory.

Assuming that not all of the past is dead and that the same evolutionary processes that have brought about the present perplexing situation have likewise brought the means of resolving our difficulty, let us examine several of the most noteworthy of the recent contributions to education. As we study each of these contributions, let us ask the questions: What is its origin? Of what permanent significance is it? Is it receiving undue emphasis? Is there anything radical or revolutionary in it?

In the field of method we have heard much recently of the terms interest, motivation, projects, and type studies. A student making a superficial study of education may get the impression that these are new ideas, recently brought to light by scholars in our great universities. If we delve into the history of the terms, we come to quite a different conclusion.

The doctrine of interest inheres in all method. The term *method* itself implies a motive; method is merely the means of getting to a point we want to reach. Whoever heard of a road that did not lead anywhere, or of a vehicle that was not designed for some form of locomotion? Teaching has been concerned with method since the beginning of time, and with motives too, for that matter. But what appears to be the contribution of modern education is to be found in making the motive that of the pupil rather than that of the teacher. Perhaps this contribution is not so modern after all. Whenever and wherever education has been sought by boys and girls in a perfectly natural way, as it is in the period of childhood preceding the school age, the motive has always been that of the pupil. Nature's method is to place in the child's grasp the things he is reaching out for. Only when education has become mechanized, when artificial systems of ideas and forms have been devised for instructional purposes, has the motive been that of the teacher and not that of the pupil. The only thing new with reference to the doctrine of interest and motivation is the degree of emphasis that these ideas have received within recent years.

The present tendency to magnify interest is an aspect of the naturalistic movement begun by Rousseau and carried forward by Pestalozzi, Herbart, Froebel, and their disciples. In line with this movement is the tendency to substitute a psychological arrangement of subject matter for the customary logical organization. Within the memory of most of us, the old method of presenting elementary language facts in the form of logical grammar has given way to natural language lessons and functional grammar. Logically organized courses in chemistry, physics, and zoölogy are now regularly preceded by a concrete course in general science and agriculture. Community civics holds identically the same relation to the social sciences that general science holds to the natural sciences; the subject represents an effort to give a psychological

presentation of certain social phenomena treated logically in economics, sociology, and political science. The most recent development along this line is the re-presentation in general mathematics of the elementary mathematical concepts commonly found in formalized arithmetic, algebra, geometry, and trigonometry. Thus, in practically every field of study, some form of reorganization along psychological lines is now being proposed.

There is nothing alarming in this tendency to present old subjects in a different way. In nature there is no chemistry, physics, or zoölogy—only natural phenomena which have been so classified by scholars for convenience in study. In social intercourse there is no grammar, rhetoric, economics, sociology, or political science—only social phenomena that have been similarly classified. There is nothing sacred or authoritative in the old form of organization. If experimentation proves that a different form of organization is better suited to the needs and capacities of school children, there can be no good reason why the new form should not supplant the old. History shows that, whenever a subject has become thoroughly methodized, there is a tendency for it to become set, formal, and dead. A subject can be vitalized only by studying it in its natural setting. The difficulty that confronts those who would reorganize school subjects is that of getting back to first principles. Teachers have been so thoroughly imbued with the customary forms that they are likely to mistake simplified revision of logical procedure for a natural (psychological) procedure. Teachers who use Nature's method are not far wrong.

The project method is thought by some to be a new thing in education, although Commenius in the seventeenth century probably knew it by another name, and Rousseau recommended its use in the instruction of Emile. Widespread interest in the project method, however, has been awakened only within the last five or six years. The *Reader's Guide to Periodical Literature* prior to 1914 contains no reference to the project method; but between 1915 and 1918 fourteen articles are listed, and for the year 1920 alone there are eighteen listed. This is sufficient to show that interest in projects is of comparatively recent origin.

The project method in its present form finds its beginning in the practical arts. It has but recently been applied to the literary subjects. Two causes are responsible for the interest now being taken in it. First, the increasing prominence of the practical arts in the curriculum has attracted attention to the methods employed in them. Second, modern psychology, in laying stress upon motor expression, has impelled teachers to devise ways and means for this expression. This latter cause is probably the more influential. Teachers who have adopted the slogan "Learn by doing" have seized upon this means of motivating their work.

The project method is good as far as it goes, but, to the writer's mind, its possibilities are somewhat limited. Its most ardent advocates do not seriously recommend it as a general method, capable of application in every part of every field. It will always be necessary to supplement it with other methods. As a device for motivating school work, it will prove a valuable instrument, but it is no more likely to furnish a panacea for educational ills than did object teaching, apperception, or correlation, to which confiding teachers in the past have pinned their faith.

The progressive teacher runs athwart intelligence tests and educational measurements. What shall be his attitude toward them? The contagion of mental measurements has spread throughout the country. The number of children tested every year is now estimated by the million. Intelligence tests of various forms have been devised; tests and scales are now available for practically all elementary and high school subjects. Although the movement is scarcely ten years old, enthusiasm for testing has already reached high tide.

What is likely to come of it? There is no

historical precedent by which to estimate the importance of the testing movement. Checking objective results is the factory method of judging efficiency. The transfer of factory methods to the school raises several interesting questions. Are the results of teaching of such a character that they may be subjected to the measurement of the yardstick? Do the scales designed for this purpose adequately measure the qualities or quantities they are supposed to measure? What part of the measure obtained represents natural ability and what part may be attributed to the instruction of the classroom? Does the measure which indicates the intelligence quotient of a school child, indicate also that most important factor in intellectual life, strength of character? Are we not in danger of devoting too much attention to functions subject to measurement, neglecting important functions not subject to measurement? To what extent may such measurements be accepted at face value? To what extent must they be corrected by common sense? Is the game worth the candle? The author confesses his inability to answer all of these questions. It is to be hoped that research will throw new light upon the subject. The whole matter is now undergoing the relentless scrutiny of scientists. It is impossible to prophesy what the verdict will be, whether there shall be more testing or less testing as the years go by. We may not hesitate to prophesy, however, that as a result of this and other efforts to improve instruction, there will be better teaching in the future.

The mooted question of transfer of training with its momentous consequences for education still hangs in the balance. An influential group of educators have convinced themselves and a large following that the transfer values of certain subjects heretofore taught solely for mental discipline are inappreciable. The traditional course of study is built upon a belief in transfer of training. Discard this belief, and it becomes necessary to make a complete renovation of the curriculum and methods of instruction. A change cannot be justified until it has been proved beyond the shadow of a doubt that the amount of transfer is insufficient to make it worth while to continue the hereditary program. Certainly the basis for a revolutionary change cannot be found in the experimental evidence at present available. Contrary to the opinion of many teachers we may assert with assurance that the matter is by no means settled. Awaiting the decision of science, we shall be wise if we move cautiously.

The spirit of the age demands action. Impelled by the commendable desire to progress, teachers are on the alert for new ideas. The progressive teacher often labors under the impression that the best methods are the newest methods, and in consequence of this he becomes the victim of the faddist. Not infrequently we find a teacher who brings home from summer school a satchel full of notes containing new ideas that have been accepted at face value and swallowed without question. Such a teacher, forgetting that not all that comes from the wise is wisdom, accepts the preachments of a favorite university professor as gospel truths. He who mistakes the vagaries of a weird sensationalist for the mature thought of a philosopher, can do little to advance the cause of education. His progressivism ever leads him into error.

Social progress owes as much to integration as to differentiation. The man who devises some new method is not entitled to all the praise; along with him should be praised those teachers who were the first to recognize the worth of the method and put it into practice. Cautious imitators are responsible for the integrating process by which society as a whole is lifted to a higher level. The main fault to be found in progressive teachers is that they are too prone to follow after strange gods; they lack acumen.

The writer does not wish it to be construed from the tenor of this paper that a progressive tendency in a teacher is to be disparaged. The hope of education lies in the

comparatively small number of teachers who have this tendency. Too many teachers, bewildered by the multiplicity of suggestions for the improvement of education, escape from their perplexity by rejecting all and falling back upon the methods by which they themselves were taught. The progressive teacher must meet new theories and practices face to face and make a choice—not merely decline to decide. He must investigate, weigh, and measure before he pronounces his decision. The progressive teacher is a positive, not a negative character, an active, not a passive personality.

The departments of education in our great universities are now busily engaged in experimentation. New devices, methods, and plans of organization are being published and spread broadcast more rapidly than teachers can read them. Elaborate courses of study have been planned for teaching hosts of summer students how to apply these new theories and practices. Extravagant claims are made by over-enthusiastic advocates. Experimenters who cry their wares the loudest often secure the largest following. The result is that things of vast importance sometimes receive scant consideration, and things of slight importance receive more than their due share of attention. Such a situation reacts upon the teaching profession, producing either scepticism or radicalism. The departments of education do not impart to teachers a proper perspective.

Too many of our teachers who have received a smattering knowledge of the new education are lacking in balance. Their professional training has consisted of applying a high power microscope to infinitely small segments of education. In consequence of this imperfection, they have failed to get a broad vision of education as a whole—a vision necessary for the proper orientation of any division thereof. As our teachers acquire skill and facility in the promotion of the immediate means, they should likewise acquire an understanding of the ultimate end to be achieved in education. A secure knowledge of the history and philosophy of education is what is wanting most to-day. This alone will provide the needed vision, the perspective, and the proper balance of those of our number who move in the vanguard. Neither the factory nor the school can be run by an artisan.

In conclusion, let it be reasserted that education is an evolutionary, not a revolutionary, process. The widespread interest in education to-day does not represent a sudden upheaval of thought, but rather the new high level of a movement that has been working its way forward for a century or more. In the present we build upon the foundations of the past. If, in our enthusiasm for improvement, we cast aside the good that has survived, we shall shortly find ourselves where we began, our efforts wasted, ourselves disheartened and turning for guidance either to the past or to some new nostrum. Let us progress by all means, but let us make sure our steps by moving wisely.

MODERN GEOGRAPHY: ITS ASPECTS, AIMS, AND METHODS

STEPHEN S. VISHER

IN OLDEN times geography was regarded as a description of the earth's surface. It included an account of such physical features as the rivers, mountains, and plains of the different countries, and also occasionally a description of the inhabitants and products. A generation ago, and in some places even more recently, work in geography consisted largely of drill in the names and locations of capes, bays, rivers, states, and capitals. One man, trained thus, on being told that a friend had spent several years in the special study of geography, commented, logically enough, that he certainly ought to be able to name all the counties in the United States and give the county-seat of each!

Locational geography and other phases of descriptive geography are fundamental and have formed the chief work of most explorers. However, as the years have gone by, the accumulation of facts of location and of simple description has made possible the subordination of this aspect of geography. The camera has contributed notably to reducing the amount of verbal description necessary. Modern geography has been defined as "the study of the earth in its relations to life," or more fully, as "the subject which is concerned especially with the physical features, such as land forms, water and climate, and their effects on living things," or more technically, "the investigation of the environment and of life's responses thereto."

I

Geography has four great phases or aspects: 1. The selection of such facts, established by other sciences, as are helpful in understanding the earth environment. 2. The augmentation of knowledge concerning the geographic environment. 3. The recognition of life-responses, and ultimately, the formulation of principles or laws of life-responses to the geographic environment. 4. The use of geography for educational purposes.

The earth and its life have been studied from many points of view. For example, the form, size, and motions of the earth are matters of astronomy, as well as of geography; the origin and characteristics of land forms and the distribution of useful minerals are matters of geology, as well as of geography; and the effects of physical conditions on plant and animal life are phases of botany and zoölogy, as well as of geography. It is not surprising, therefore, that many facts of great importance to geography have been discovered by workers in other sciences. Geography should select from the vast array of knowledge accumulated by other sciences, those facts that are helpful in solving its special problems. Many such facts have been selected already. Astronomy has contributed facts concerning the sun (the chief source of energy on the earth), as well as facts concerning the earth's shape, rotation, and revolution. Mathematics, in addition to performing inestimable service in surveying, has contributed calculations of the size of the earth, and of tidal occurrences and influences. Physics has established a large number of laws essential to the understanding of earth conditions, such as the laws of gravitation, diffusion, expansion and contraction with changes of temperature, the crushing-point of rocks, hydrostatic pressure, the transfer of heat, and of evaporation. Chemistry supplies knowledge of the various elements and compounds and their activity in nature and of the relations between heat and chemical activity. Geology explains the structure and character of rocks and useful minerals, the origin, char-

acter, and distribution of physical features, and also tells much in regard to the conditions of the earth in past ages, when most existing life-forms were evolved. Biology, including anthropology, contributes detailed descriptions of the life of various geographic areas, thus facilitating the correlation of differences in life with differences in environment. It also has contributed the theory of natural selection and presented many clear-cut cases of response to environment.

The augmentation of knowledge about the earth-environment concerns: (a) the climate, weather, and other aspects of the atmosphere; (b) the location, characteristics, and alteration of the several sorts of land features and soils; (c) the bodies of water, notably the ocean; (d) the preparation of accurate and effective maps of the distribution of valuable natural resources, products, climatic conditions, and ultimately of all important types of life and resources found on the earth.

When it becomes possible to predict responses to the geographic environment with half the accuracy now attainable in the predictions made in physics and chemistry, it may be said that man understands his physical environment. The environment is so complicated and life so varied and so complex, however, that the formulation of the laws of life responses has scarcely commenced. The responses to day and night, to seasons, and to certain phases of climate, notably temperature, wind and rainfall, and to certain natural resources, have been partially formulated. Some of the responses to topography and accessibility are understood, but the influence of many other geographic factors, such as light, air pressure, and the air in the soil, are little known.

Geography is taught in the elementary schools of all civilized countries. The reason for its inclusion thus widely is that it is properly recognized as having especial and distinctive educational value. Training in geography which includes the proper proportion of text-book work, supplementary reading, field-study observation, laboratory work, map-making, report-writing, and quiz work, probably can be made, by a qualified teacher, as valuable in general education as training in any other subject.

II

The three chief aims of geography are: to make known life's environment and its influences; to educate pupils more effectively for citizenship; and to discover facts about the earth the practical importance of which is not yet known—in other words, facts that are not known to be part of life's environment.

The contrast in attitude of the modern geographer and of the savage in regard to such things as eclipses, earthquakes, volcanoes, storms, and animal migrations, suggests one aspect in which knowledge of the earth environment is important—the replacement of fear, superstition, and magic by intelligent appreciation. Another way of stating this great aim is: To know all the resources and possibilities of each part of the earth and all the geographic factors that affect their utilization or development. In still other words: To enable man to adjust himself intelligently to his environment and no longer to be "like dumb, driven cattle."

Many geographers have as their chief aim the general education of their pupils, and have chosen geography because it lends itself admirably to this end. Teachers possessed of such appreciation for geography often are instrumental in inducing pupils to specialize in the subject, some of whom in later years advance the science of geography more directly by research work.

Geography is exceptionally well adapted to aid in preparation for citizenship. There are several ways in which that end may be accomplished through the study of geography: 1. It should supply the pupil with a large body of facts needed by all and not obtainable from the other courses studied in the elementary schools. No less useful than the knowledge of spelling or of division, are a comprehension of such facts as: "the land is the great source of wealth"; "crop-yields depend largely on climatic conditions";

and "a favorable location is exceedingly valuable for any human activity." 2. It should give the pupil a strong appreciation of the power of geographic influences. Such appreciation will make him alert to the need of knowing and adjusting himself to the climatic, topographic, locational, and other physical conditions that affect him and his work. 3. It should develop in him an active interest in, and consequently a sympathetic attitude toward, other peoples and lands. Such interest will encourage him to read highly educative literature and to travel. It will give increased value to reading and travel. 4. It should give him a wider breadth of view and a more sympathetic attitude toward others as he realizes how diverse are the conditions encountered successfully by man in other parts of the world. Thus it will be a powerful influence toward international peace and against jingoism and chauvinism by dispelling the special forms of ignorance upon which these are based. 5. It should impress the pupil with the almost complete dependence of man upon land and its resources. These early impressions doubtless will improve the attitude of the individual in future years in regard to such important questions as conservation and taxation. 6. The value of the study of geography in increasing the realization that effects follow causes, and in training the reasoning power, the eye, and the hand, is indisputable. 7. Geography brings the student in contact with many other sciences, with history, economics, and with many industries. It also acquaints him with many regions. Therefore training in geography will aid the student in selecting his special activity, and the place in which there is opportunity.

Another aim is to discover facts in regard to the earth that are not yet known to have any value in enabling man to adjust himself to his environment but which may some day prove of great value. Much exploration, for instance in polar regions, is an illustration of this aim, which corresponds to "pure science" investigations in other fields. Other examples of this sort are many investigations of the distribution of plants and animals over the earth. Although many such facts have no immediate value, after a sufficiently large body of facts have been gathered, valuable and helpful conclusions may be drawn.

III

The earth is the geographer's laboratory and many of the experiments—the reactions between life and environment—have been going on through the geologic as well as the historic past. Most of these reactions have been so complicated that their interpretation is exceedingly difficult. One of the tasks of the geographer is to search for or produce relatively simple reactions, for after such are interpreted, more complicated ones may be understood. This study of relatively simple reactions is carried on by the study of certain aspects of historical geography, of regional geography, of bio-geography, of ecology, and of what may be called experimental geography and also by searching throughout the world for responses to particular influences.

Innumerable past events have been affected by geographic influences. Examples are: The rain preceding the battle of Waterloo frustrated Napoleon's promising plans. The extraordinary rainy summers of 1862 and 1863, resulting in an almost complete failure of the wheat crop in England, and increasing greatly her dependence upon the American "North" for food, helped overcome the demand of cotton-manufacturers for the recognition of the Confederacy. The Appalachian barrier largely confined the English colonists to the coastal region until settlements were fairly compact, until stable but flexible governments had been worked out, and until a sense of political unity had been developed. When expansion westward finally came, the results were permanent. On the other hand, with the French it was only temporary for, being able to penetrate westward readily along the St. Lawrence, the Ottawa, and the Great Lakes, they did so while still poorly prepared to hold the

territory and inadequately reënforced by new arrivals.

Studies of little-known regions have consisted chiefly of describing their features and other characteristics and making maps depicting the distribution of different features and elements. Regional studies in better-known areas are chiefly attempts to find the geographic reasons for the distribution of life and for its characteristics and activities. They, therefore, include a study of such influences as climate, topography, soil, mineral resources, and location. As many facts of distribution, etc., are not due to local geographic conditions, but are a result of influences, geographic, historical, economic, and psychological, of other areas, strictly regional geographic studies of small areas are necessarily incomplete.

Intermediate, in some respects, between historical and regional geography is the searching throughout the recent and the remote past, and in all parts of the earth, for responses to recognized geographic influences. What have been the results of changes of climate, seasonal changes, aridity, persistent cloudiness, of sunshine, cyclonic storms? What have been the influences of such physical features as plains, plateaus, mountains and rivers, of prairies, bush and forest, and of coal and other natural resources?

While historical geography is concerned largely with somewhat striking illustrations of how geographic conditions have affected the course of history, this unnamed aspect deals with influences that seldom have been recognized by historians as being of much importance. It has an advantage over regional geography in not being limited as to area. Anthropo-geography or human ecology is the name given to studies in human geography by this method. The term bio-geography is used for similar studies in regard to plants and animals. There ought to be some name for both these phases. Possibly "ecological geography" might serve.

Experimental studies cannot be carried out as easily in geography as in most other sciences, but they are being undertaken. Many kinds of plants and animals have been transferred, in many cases unpremeditatedly, to different environments. Several careful studies along this line have been made already, as by W. L. Tower with insects and by many plant breeders with plants, and doubtless the experimental method will increase greatly in importance. Another method, approaching the experimental, is the detailed study of the efficiency, activity, and health of human workers under different geographic conditions, such as Huntington's stimulating studies of the influence of changes of weather and climate.

IV

The scope of geography is wide, its aim lofty, and its methods scientific. Its scope is, indeed, so vast that each of several subdivisions engage many investigators. Its aims are so far-reaching that they can not be easily or promptly accomplished, but that does not decrease their desirability. In method, geography stands between the descriptive sciences and the experimental, partaking of both. Hence, elementary geography provides an advantageous introduction to either group, as well as being of special educative value itself, particularly in the training for citizenship. Research in geography varies in difficulty and value, most phases comparing with most research in other sciences. The working out of the influences of man's earth environment, however, is one of science's most difficult and important problems.

OUR GOVERNMENT SCHOOLS IN THE CANAL ZONE

ALBERT R. LANG

THE Panama Canal Zone is a strip of land ten miles wide—five miles on either side of the canal—and forty-seven miles long, reaching across the Republic of Panama from ocean to ocean; and by treaty with the Government of Panama, is under the permanent control and jurisdiction of the United States Government. It lies in latitude nearly nine, a little over five hundred nautical miles north of the equator; and in longitude eighty, almost due south of the District of Columbia. It has a largely transient population, fluctuating according to the amount of work involved in the operation and maintenance of the canal. The present population is about 23,000, of which approximately forty-three per cent. are white Americans and fifty-seven per cent. are colored West Indians. In this tropical territory, the United States Government in May, 1904, succeeded the French Government in the enterprise of constructing an interoceanic canal; and under the ingenious leadership of that master-mind, General George W. Goethals, brought this marvelous engineering feat to a successful conclusion in August, 1914.

Much has been said and written about the engineering feat of building the Panama Canal and about the sanitary work of exterminating yellow fever from the Canal Zone, but little about the auxiliary agencies that were essential to the attainment of canal construction. General Goethals, in his book, *Government of the Canal Zone*, states that the construction of the canal and the sanitation of the Canal Zone involved the solution of no new engineering or sanitary problems—simply the application of known principles and methods on a large scale; whereas a novel problem in government was presented—"a new situation existed which had to be solved and after various changes there was evolved a form of government which was unique, differing from any established methods of administration." The Canal Zone school system is a branch of this unique government.

Prior to the American occupation, no effort had been made to organize a system of schools for the interior villages. The native children had grown up with the little instruction a few of them obtained at home or in an occasional private school. The laborers imported by the French Canal Company had opened a few schools, but these constituted a very small step toward the growth of a school system. Among the first activities of the Isthmian Canal Commission, appointed by President Roosevelt to have charge of canal affairs, was the authorization of the establishment of a public school system. This was within four months after the United States secured control over the Canal Zone. Just as in the development of our early state school systems it was common to place them in the beginning under an existing officer as an additional duty, so on the Canal Zone the immediate responsibility for the school system was assigned to the Collector of Revenues, who had had some experience with our Government schools in Porto Rico. This official had an earnest desire to establish the schools at once, but there were many obstacles and it was more than a year after their authorization before anything more than making preliminary plans was accomplished. A school census showed that there were nearly two thousand children between the ages of six and sixteen, one half of whom could neither read nor write. It was found that the successful establishment of schools for these children required the expert services of an experienced and trained educator, giving his entire attention to the organization and ad-

ministration of a school system. Accordingly, on December 2, 1905, a superintendent of schools, reporting to the Collector of Revenues, was appointed. The school organization remained under the Collector of Revenues nearly two years, after which it was transferred to the Bureau of Municipalities, where it was free from the Government routine which had previously caused many delays. A few months later, however, the schools were organized as an independent division under the Department of Civil Administration, where they remained until April 1, 1914, when the present permanent canal organization became effective. Prior to the permanent organization the schools were supported by local revenues. Since that time the funds have been supplied by Congressional appropriation.

On January 2, 1906, the first public school under the jurisdiction of the United States Government was opened at Corozal, a town near the Pacific entrance of the Canal. This school was closed in a little over four months. In the meantime, however, additional schools had been started at other towns. Within nine months there were thirty schools with thirty-four teachers and 1,237 pupils. This rapid growth was due largely to compulsory school ordinances. At this time the enrollment was made up largely of West Indian negroes; only about ten per cent. were white. Only fourteen of the thirty-four teachers were Americans, the rest were colored West Indians. Only four of the thirty schools were for white children only. Living conditions at this time and for some time later made it undesirable to secure American teachers from the United States. Those who were employed were usually teachers visiting friends on the Isthmus or were wives of canal employees. As living conditions became more pleasant and more employees brought their families to the Canal Zone, the percentage of white children gradually increased until in 1910 it exceeded the colored school population. It early became the policy to maintain separate schools for the white and the colored pupils.

During construction days the life of a school was often short. Towns were built where canal construction demanded and were vacated and moved when the forces were required at other points. This was a continuous process. Pupils were constantly transferring in large numbers. This condition continued up into 1914, when, by a process of natural selection, only the towns at the Canal entrances and at the locks survived in the permanent organization. In the meantime the Canal Zone had been depopulated of all natives, so that at the present time the children of American employees and of West Indian laborers resident at the permanent towns, and of the Army and Navy forces, compose the school population.

For some time the foremost problems were those pertaining to the provision of buildings, teachers, and supplies. Gradually these conditions were met; and the first great step in the development of the school system had been taken. The solution of problems connected with the grading of pupils followed—problems which in the life of a school system like that of the Canal Zone necessarily come later than the construction of buildings and provision of teachers and supplies. The number of children in the white schools became sufficiently large to make it advisable to inaugurate such a plan for the gradation and classification of pupils as existed in the United States. This transition from what had been essentially a system of individual instruction to what was now essentially class instruction, involved the necessity of well organized courses of study including some high school classes, and of giving closer attention to the grading of the pupils throughout the school system. An effort was made to provide facilities for continuing the education of children, so that upon returning to the United States the pupils' work could be continued without loss of time or progress.

The problem of grading was especially difficult because many pupils lost time from school while on vacation in the United States with their parents. Another obstacle was the different degree of advancement in the several subjects shown by pupils in any par-

ticular grade, due largely to preparation in so many different school systems in the various states from which the pupils came. The widely scattered distribution of the schools added to the problem. Then, too, the fact that the teachers came from various sections of the United States, bringing their local standards and methods of teaching, complicated the problem of unifying the work. It was soon discovered that a larger amount of supervision to the number of teachers employed was required than is necessary in a centralized city system, where the teachers are drawn to a more limited extent from centers with educational ideas at variance with those of the system to which they are called.

The grading of the schools created the need for consolidation. The policy was early adopted of providing free transportation to the nearest town with appropriate school facilities for children living in towns where the number of pupils did not justify providing school accommodations. This transportation consisted of passes on trains of the Panama Railroad, wagonettes operated by the Division of Schools, and in a few instances it included even a boat and ferryman. This policy was carried out so extensively that for the school year 1910-1911 over 400,000 miles of transportation were furnished, which averaged nearly two miles a day for each pupil in attendance.

On April 1, 1914, the construction period of the Panama Canal was officially declared at an end, and the permanent organization became effective. However, the actual transition from temporary to permanent conditions was a gradual process. While constant adjustments to meet transient and temporary conditions were still necessary, it was now possible to begin to formulate definite plans and policies for the permanent school system.

The permanent canal organization provides for a Governor in whom is vested entire authority. His appointment is made by the President of the United States for a term of four years, upon the recommendation of the Secretary of War, and is confirmed by the United States Senate. General Goethals, who had been in charge of canal construction since 1907, and who is famous as a genius in organization and administration as well as the builder of the Panama Canal, became the first Governor and served until he resigned in 1916. The Governor reports to the Secretary of War and is responsible to him for the operation and maintenance of the Panama Canal and the government of the Canal Zone. His duties are somewhat similar to those of a governor of a state and of a president of a corporation combined. He is president of the Panama Railroad and Steamship Line by virtue of his governorship. As in all other affairs, he is the ultimate administrative head of the school system, the person of last appeal and decision.

The Panama Canal administrative organization is divided into various departments, such as Civil Administration, Canal Operation and Maintenance, Panama Railroad and Steamship Line, Health, Accounting, and Supply, with an administrative head for each department appointed by and responsible to the Governor. Each department is divided into various divisions and bureaus with a head of each division or bureau reporting directly to the heads of the respective departments. The head of the Department of Civil Administration is the Executive Secretary to the Governor. The Department of Civil Administration includes such divisions as schools, police and fire protection, courts, postal service, and miscellaneous civil affairs; and such bureaus as correspondence, record, personnel, property accounting, and statistics for the entire canal organization. The Superintendent of Schools is the head of the Division of Schools. He is appointed by the Governor upon the recommendation of the Executive Secretary, to whom he reports. Administrative responsibility is direct and centralized, and each department and division head is given authority commensurate with his large responsibilities.

Since each department, division, and bureau is an integral part, with a distinct and specialized function, of the great or-

ganization of the Panama Canal, there is large interaction and coöperation between them. The Division of Schools utilizes the services of the Panama Canal Health Department for medical inspection and health work in the schools; the Supply Department for school construction, repairs, janitor service, and supplies; the Accounting Department for school financial accounting; the Property Bureau for non-expendable supply and equipment accounting; the Record Bureau for filing school correspondence for reference; the Personnel Bureau for keeping school personnel files; and the Correspondence Bureau for special clerical and stenographic service. While all educational matters of the Canal Zone are centralized in the Division of Schools, the services of other departments, divisions, and bureaus are employed by the Division of Schools for the particular services of the Panama Canal for which they are established. This interrelationship makes available more adequate and efficient service than a school system of ordinary size could provide entirely within its own organization. In this way, the Canal Zone Division of Schools has at its disposal expert services and facilities that only the largest city school systems could maintain.

The school organization consists of a superintendent; two assistant superintendents, one for primary supervision and one for standard measurements and upper grade supervision; building principals; supervisors and teachers of special subjects; and regular high and elementary school teachers. The school force for 1921–1922 totaled 114, of which 82 were white and 32 were colored. For the same year the net enrollment was 3,706, of which 1,897 were white and 1,809 were colored; and the average daily attendance was 2,862, of which 1,519 were white and 1,343 were colored.

The school system is, in general, similar to a city school system in the United States. Some differences exist on account of conditions peculiar to the Canal Zone. While the location of different towns at various places causes a scattering of schools, they are somewhat comparable with the schools located in various sections of a city. There are no rural or native schools. There are five elementary white schools and two high schools for children of American employees, and seven elementary colored schools for children of West Indian laborers.

Excellent concrete school buildings were constructed in each of the five permanent towns for American employees just prior to the participation of the United States in the World War. These are designed after a simple Old Spanish type of architecture, adapted to the tropical climate, and in conformity with the best principles of school hygiene and school construction. They are well equipped with modern and sanitary furnishings. Teachers coming to the Canal Zone are always agreeably surprised and pleased with the beautiful class-rooms and modern conveniences. While each classroom is of the conventional size to accommodate forty pupils, the policy has been to keep the number of pupils to a teacher at about thirty. Frame buildings are still used for the colored schools; however, in most cases, they are modern in arrangement and well adapted to the requirements.

The Canal Zone schools are organized on the 8–4 plan. The school situation has not been suitable to the junior high school plan of reorganization. However, for the past four years the promotion-by-subject plan has been successfully used in the white schools, beginning with the fourth grade. By this plan the subjects of the respective grades are placed at fixed periods on a general program in order to permit pupils to take work outside their regular rooms. Accordingly, each pupil is able to take every subject in the grade his ability warrants without reference to his classification or ability in other subjects. This has necessitated a careful correlation between the eighth grade and the high school.

Physical training and swimming are given due consideration through the coöperation of the Bureau of Clubs and Playgrounds. Practically every pupil is a good swimmer and some have become experts and have

given swimming and diving exhibitions at Madison Square Garden, New York City, and elsewhere. Two of the pupils competed in the international games at Paris this past summer. These are significant facts in connection with pupil life in the tropics. Every pupil submits to a careful medical examination at the beginning of each school year, or at such time as he enters during the school year; and thereafter a general inspection is made monthly which includes sanitary condition of buildings and playgrounds. Pupils absent from school on account of sickness are not re-admitted, except upon certificate from the district physician. Consequently, health conditions in the schools are maintained at a high degree of excellence. The usual zymotic diseases of children take a very mild form in the Canal Zone.

The high school program of studies includes the usual propædeutic, commercial, domestic science, and industrial arts curricula. A large percentage of the high school graduates return to the United States and enter institutions of higher learning. There is practically no employment on the Canal Zone for them, and the professional, skilled, and military environment tends to act as a stimulus for entering some expert vocation. They have entered the various colleges and universities in the United States without difficulty and have maintained a good standing. One boy who had all his high school work and nearly all his elementary school work on the Canal Zone, now ranks second in his class at the Annapolis Naval Academy. This also is a significant fact in connection with pupil life in the tropics. The Board on College Entrance Examinations includes the Canal Zone as a center for the convenience of pupils desiring to attend institutions requiring entrance examinations. Night school classes are provided for adults in subjects for which there is sufficient demand. A school for the apprentices working in the Panama Canal Mechanical Division has been maintained as conditions warranted. In brief, educational facilities for the first twelve years of school life are complete and adequate. There are no school provisions, however, beyond the high school.

All members of the school force are selected by the superintendent of schools. Personal applications are of course impracticable. Teachers interested are supplied with regular application forms. Special forms are also supplied for applicant's references. The candidate's file, when completed, is carefully graded. Lists are prepared and either mailed or cabled, depending upon the urgency, to the Branch Office of the Panama Canal at Washington, D. C., which handles the details of appointment and arranges the voyage to the Canal Zone. The initial voyage and the return voyage, upon resignation, after three years' satisfactory service are paid by the Government. A nominal rate is charged on the Panama Steamship Line for annual vacation trips between New York City and the Isthmus. Teachers are given an indefinite tenure. No teacher is considered for employment in the white schools who has not had at least two years' successful experience in a first class city school system in the United States. Elementary school teachers are required to have had at least two years professional training beyond a regular four-year high school course, in a standard normal school or college; and high school teachers are required to hold a bachelor's degree from a standard college or university, and to have had professional training in education. The supply of teachers has been so much greater than the demand that the force as a rule has far surpassed the minimum qualifications.

The length of service for white teachers averages about three years. Of the teaching force for 1921–1922, thirty-five per cent. were new; twenty-five per cent. were beginning their second year; thirteen per cent., their third year; nine per cent., their fourth year; eighteen per cent., their fifth to fourteenth year. As mentioned previously these teachers come from different states and localities, bringing various local views, standards, and methods of teaching; and to harmonize these is no small task. During the above mentioned school year, the white

teaching force represented twenty-seven different states, and in addition one teacher from Panama and one from Costa Rica. They represented practically as many school systems as there were number of teachers. This condition, together with the annual turn-over, creates an unique and interesting problem in supervision.

The white pupil population is transient also. The average length of time for pupils in the schools is about three years, the same as the length of service for teachers and for all other employees. The pupils come from every state, from different and various school systems of the respective states with unequal and different standards of work. Some of the better class Panaman children attend the Canal Zone schools upon the payment of a tuition fee. There is a large variety of previous training to unify. There are a few American pupils who complete their entire elementary and high school life in the Canal Zone.

The West Indian colored teaching force and school population are more permanent. The teaching force in the colored schools consists entirely of West Indian men teachers, mostly Jamaicans, who have been educated and trained in the normal schools and colleges of their homeland, and experienced in the school systems of their own country. They are, as a rule, very dependable and professional in spirit, and are well adapted to the work of the colored schools.

The Canal Zone schools not only provide educational facilities for the children of the American communities of the Panama Canal employees, but they also serve as an example of American education to many non-Americans visiting the Panama Canal. The best possible educational system is required in the former case, since the very existence and future of our form of government is dependent upon public education; and desirable, in the latter case, in order to convey a proper impression to non-Americans judging American education by the Canal Zone school system. President Roosevelt in accordance with his belief that "the most expensive crop is Ignorance and the best of all crops is the children," showed an early interest in the Canal Zone schools. In December, 1906, when he made a visit to the Isthmus, he expressed personal pleasure and satisfaction with the efforts being put forth in the development of the educational system. It has meant much to the schools to have had the personal interest and the inspiration of such men as President Roosevelt and General Goethals.

A FRESHMAN ENGLISH COURSE

STANLEY T. WILLIAMS

IN AN essay published in another periodical[1] I recorded certain impressons about teaching freshmen in a large university. I suggested that a freshman was an extraordinary person with extraordinary needs. I even dared, like a modern novelist, to sketch the topography of his mind: its shrubbery of tangled fact; its unexpected hills of knowledge; and its open spaces, vast as a western campus. On the English course most valuable for this individual no assembly of the learned has ever perfectly agreed. Still deeper is the *impasse* when the ultimate aims of freshmen are different. The course needed for a group of boys who have studied the classics, and who are destined, via the B.A., to the professions, presents one problem. A course which most benefits young engineers, or chemists, or business men, or group combinations of these is another problem, and not an easier one. To-day the latter situation is a commonplace. An article by a friend of mine, describing the University of California as "A Market Place, Not a Monastery," indicates the

[1]The *North American Review*, December, 1921.

trend of things. Carlyle's university, "a collection of books," is a collection of boys (and girls) desiring types of education as various as there are types of citizens.

For these students American universities create "common" English courses as different in cut and color as the clothes of the boys from farm and fashionable school. Sometimes the watchword is "composition." My friends peer at me over a rampart of themes. They mutter about hundreds read that day, and so many thousands since Christmas. You have seen them in some cell, in a cloud of tobacco smoke, flourishing a blue pencil with the speed of a rapier, and contriving always to keep one paper in the air. Elsewhere the battle-cry is "survey." "From Beowulf to Bulwer-Lytton," said a teacher proudly. "We show them the whole works." This in nine months, three times a week! Others disregard, save a play or two of Shakespeare's, the proven body of English literature. Like Charles Kingsley, when hard pressed by Cardinal Newman, they "waive that point." Instead they teach modern poetry, and hope for the best.

"From the fury of the Northmen," our forefathers prayed, "deliver us." The fury of modern education is worth a supplication or two. I have nothing to say against composition. I believe that it should be taught, though not as a vast system, crowding out literature. Nor against survey courses, except that they should be distinctly auxiliary to the study of literature. But these studies are becoming not unlike the famous third-century locusts. A few were beneficial, but they soon destroyed all life, righteous and unrighteous. Yet the best way to avoid foolish criticism of what one does not understand is Cicero's. "I pass over—" he used to say hurriedly. I pass over these problems, and confine myself to the freshman who is pretty definitely headed for the old-fashioned education and the professions. For they still come to the universities. There is something in the stories of business men compelling their sons to study Latin and Greek. What sort of an English course should such a boy have?

A reactionary like myself may think the answer to this question important in two ways. The first of these is limited; it relates to the further study of English in college. English is a popular and useful major for men who intend to enter the professions. Well, at any rate it is a major, and this granted, the proper grounding in freshman year is an essential. The boy who makes English the chief study of his college course will have at least a half-dozen courses in various parts of the field of English literature. If he takes honors courses, he will study more widely and more deeply. The first year of college points the way in English as in so many other respects. Now, advanced courses in Elizabethan literature or in the nineteenth century will be as intelligible as Irving's unknown tongues to the students who have never worked intensively on a few plays of Shakespeare or on one or two writers who endured the reign of Queen Victoria. Somehow the study of "coherence" does not prepare for an understanding of Shelley. Lecturers in junior and senior courses build their best structures upon the writers studied in previous years. Suppose there is no foundation save a watery survey course? "I felt as if I were talking to students with a background," said a teacher in nineteenth-century literature as he discussed a lecture on Carlyle. His students had had seventeen recitations on Carlyle in freshman year.

The second way in which the type of freshman course is important is concerned with the larger principle of the student's attitude toward English literature. This is more metaphysical. Opponents of my course will claim the same advantages for their own. I mean, frankly, that the study of English opens the door to many experiences of the mind and spirit. It is a means to comprehension of what Goethe called "the great confessions" of literature. No one doubts, I think, that the impressions of the freshman year are often indelible. What a boy reads at the age of eighteen may fix his attitude forever. The time, then, for second-best, if there ever is such a time, is

not in freshman year. The selection of a right freshman English course is bound up in a right *introduction* to "the best that has been thought and said in the world."

Well, I am anticipating my creed. Let me say at once what I believe concerning such a course. First of all, it should be a course in the proven and acknowledged body of English literature. Macaulay was always praising his own generation, whether railroads or writers. But Matthew Arnold repeatedly warned his enthusiastic countrymen to test their literature by large standards. "A lady in the State of Ohio," he writes, "sent to me only the other day a volume on American authors; the praise given throughout was of such high pitch that in thanking her I could not forbear saying that for only one or two of the authors named was such a strain of praise admissible, and that we lost all real standard of excellence by praising so uniformly and immoderately." Even so to-day many teachers may well cry in what they have said of modern literature: "Peccavimus!" Imagine a class in English of seventy-five years ago studying the poetry of Mrs. Felicia Hemans or the prose of Martin Tupper. Yet these worthies were more popular in their day than—well, than those who shall be nameless, but whose reputations are about as undying. These moderns are talented, but they are as truly in Milton's scornful phrase, "the summer-flies" of the age. You remember that Swift's *Prince of Posterity* was very much under the thumb of his tutor, Time. And this relentless judge had by no means declared his intention regarding such dazzling writers as Arbuthnot and John Dennis. Alas! he has now, and will do likewise with many "remarkable moderns" who are now studied in English courses. The acknowledged and proven best: Shakespeare, Milton, Wordsworth—the list is not unfamiliar.

Your satirical answer is ready: "Ah, writers must be dead before we can study them in courses." Well, it is apt to be so, though death is not the test. People are usually dead before they are immortal. But the physical existence of writers is neither here nor there. It is a habit of pedants to dissect the insignificant dead. But is this worse than gravely analyzing and teaching a living nonentity? The course in English literature will do well to consider what is really meant when it is said of writers that are "alive." (Otherwise they will be likely to make the error of the lady from Ohio.)

The choir invisible is large. Indeed the acknowledged great are so many that a second principle should guide in their selection: the writers chosen should be those who direct readily to great trends of thought. Of course this is relative. All writers are part of the current of thought, but there are the eddies and tributaries, and there are the main streams. Thus it is practicable for freshmen to study the *Essays of Elia*, but it is more valuable for them to know Carlyle on Dante, on Johnson, or on Norse mythology, or Ruskin on the nature of Gothic architecture. Such study awakens what Newman calls, with enlarged meaning, the "curiosity" which he considered so significant a part of education. If, as a result, students read together the *Divine Comedy* or go deeper into architecture, something has been accomplished. But you say: "We are not studying Italian literature!" I reply: "Very well. The course *I* believe is measured in part by the subjects to which it introduces its students."

The study of these few writers must be intensive. The student must know, even more thoroughly than our conventional ideals demand, the text of the lesson. In class he gets no "survey" of the poet or warmed-over biography. Biography comes, if at all, by the way. Biographical data are poor substitutes for thinking. Like Stevenson's recollections of scientific fact, biography either slips from the mind, or clings like single useless burrs. I remember an excellent student telling me that all he could recall from a lecture on Shakespeare's life was that the poet's father had been arrested for having rubbish in his front yard; and from a discourse on Tennyson, that he had a healthy life. But instead of biography

the student considers ideas of the writers, and he develops them. *Hic labor, hic opus!*

The objections one hears in the class-room to the intensive study of a few authors is, presumably, the first objection of the first student to the first subject: it is hard work. "Not like my Lancelot." Not like, they say, relating pleasantly the adventures of Rebecca and Rowena. No, it is not like that. Surprising that English should be a subject to try one's teeth on, to tussle with. Yet I believe the occasional absence of this quality in English courses explains the sneer of the professor of physics: "English? No, I do not allow my children to take courses in English. I bring up my sons and daughters to read their novels by themselves." Or the curt comment of the historian on English as a serious study: "Baby food!" Such an impression of English literature is unfortunate. I see no harm in an early admission of Wolf's statement that the best study of English is scientific.

The other objection to intensive study is, I fancy, passed on to freshmen from older heads. This probing, I hear them say, is the wrong way to go about it. Over-analysis destroys appreciation. I have phrased it for them, but this is the burden of their dirge. Of course it depends on what you mean by analysis. If analysis is a scholium such as Matthew Arnold's burlesque on: "Canst thou not minister to a mind diseased?", I cheerfully agree with my students. (The pupil paraphrased, you recall: "Can you not wait upon the lunatic?") I can feel no enthusiasm for the delicate point: whether Henry IV had a black or a white horse at the beginning of the play. But a patient study of Cordelia's motives, of Falstaff's view of life, of Carlyle's notion of "the hero,"—is this without profit? The letter without the spirit is evil, but what of "the school-girl's preference" in literature? Of such judgments as "the best since——" and "the worst since——"? Intensive study is concerned with evidence and evidence in literature, as elsewhere, is the means to Truth.

EDUCATION FOR CITIZENSHIP IN FRANCE

Fowler D. Brooks

THE remarkable national unity of France during the late war gave evidence of a social-civic training far more effective than that which the civic, political, and social conditions previous to 1914 had revealed to many careful observers. Probably the majority of well-informed Americans were surprised that the French people did not "go to pieces" when the war began; no doubt a great many Germans also were surprised. What factors account for this national unity? What elements are found in education for citizenship in France?

The social-civic solidarity is due in large measure to certain geographic, sociological, economic, and political conditions as well as to the type of civic training. For four hundred years there have been few territorial changes in continental France. Her territory has been a compact body, with well-marked natural boundaries. The Franco-Prussian War not only left a vulnerable point on the northeast, but also preserved that constant threat of invasion which has done much to keep alive a strong nationalism. It also deprived France of most of her iron ore resources. In 1912 nearly three fourths of the iron ore produced in the German Empire came from the territory taken from France in 1871.

The French have been a homogeneous people for more than four centuries, with practically no immigration, and comparatively little emigration. Family life is very potent —in fact the family is so sheltered and protected that the vast majority of Ameri-

cans who were in France during the war had no opportunity to know middle- and upper-class France. Society is stratified, the lines being well marked.

That the differences in men are mainly due to the opportunities and education which they have had—a corollary of Locke's *tabula rasa;* that free public education is a necessary State function and that the public primary schools should be lay schools; that the democratic State has the right to compel all of its children to attend school and to prescribe minimum common subjects for all its children, at the same time not interfering with individual religious freedom —all these principles were inherent in the French Revolution and finally after a long and bitter struggle have become part of the national educational policy. The compulsory education law, passed by the Convention in 1793, was never enforced. The law of 1882 was opposed as violating the rights of parents. To these objections Jules Ferry replied, "One encroaches upon neither the liberty of the father of the family nor upon that of the child in denying to the latter the right of ignorance, in refusing to the former the liberty of unlimited exploitation."

Many French educators have set forth very clearly the aims of their civic education. Moral education is regarded very highly. Ernest Lavisse in 1898 said: "I wish that the history taught the people be especially the history of the great effort toward justice and liberty, toward right." Such teaching he would have include rights as well as duties, and prepare citizens to consent to obey the law and love to obey it. In 1915 Moulet said: "From the point of view from which I conceive civic education, it is efficacious less by the definite facts with which it supplies the child, the future citizen, than by the proper moral emotion, the inclinations, the respect and devotion which it excites in the heart. . . . To know does not suffice; it is necessary to respect, to love these laws, these institutions, these rights and duties, this ideal of national honesty and of civic virtue, inseparable from democratic republican education. . . . Civic instruction ought to make a child feel that all social transformation, as all progress, is never the work of one man—king, chief, patron, or master; it comes from our concerted efforts."

To attain the purposes of civic-moral education, use is made of (1) a formal course of study in civics in the primary and secondary schools, (2) stories to arouse the appropriate patriotic and moral feelings, (3) lectures and conversations by the teacher upon various civic and moral topics, and (4) actual observation of civic affairs and institutions, including visits to town or city departments and use of such civic documents as registration cards, bulletins of elections, military passes, and orders or decrees of the mayor or prefect. "Social education" is provided by participation in numerous coöperative and other similar organizations.

The formal civics course of study outlines in great detail the topics to be taught. The elementary course embraces three sections, designed for pupils of the ages from seven to nine, from nine to eleven, and from eleven to thirteen, respectively. The secondary course of study includes two years of *morale* and part of a year of common law. Many of the topics are the same as were generally included in our civil government courses a few years ago. Thus pupils from nine to eleven years of age are assigned "brief summaries on the organization of France; the citizen rights and duties, military service, taxes, universal suffrage, the commune, the mayor and the municipal council, the department, the prefect and the council general; the State, legislative power, executive power, justice." Local history and the history of France are utilized.

Thirteen-year-old boys in the secondary school receive one hour's instruction a week in *morale.* It includes "lectures, recitations, systematic conversations suitable both for strengthening feelings favorable to moral development and for overcoming contrary tendencies." Such topics as "sincerity, courage, moral delicacy, uprightness, goodness, education of self" are outlined in detail: e.g., under courage are treated bravery

and cowardice, vigor and laziness, perseverance and fickleness, courage under suffering, against pleasure, to resist opinion for conscience's sake, to recognize one's faults, to confess moral weakness. Textbooks are used, and considerable reading is done to secure information and to help form civic and moral ideas and ideals.

The varied list of stories used to arouse the proper emotions includes many excellent ones, such as Charles Wagner's "The Land of Just About." Many stories of doubtful value are included: e.g., those which are to be read by a pupil in case he breaks the school or moral code. If in a fit of rage he hurts a fellow-pupil, he is given a book and reads to the class a story showing very vividly the evil consequences of a boy's not learning to control his temper.

The lectures and conversations by the teacher vary from informal, incidental, intimate, personal talks, which tend to arouse the desired reactions in pupils, to formal lectures or talks at stated times, followed by the preparation of summaries or precepts which are put in note-books and committed to memory.

Under the name of social education France gives a well-organized, widespread, effective civic training. The whole nation is a veritable network of coöperative societies. A few years ago there were more than fifteen hundred different ones, many of them having numerous branches. The public elementary school teachers have helped to organize many of them. They are organized for children as well as for adults, and are a powerful means of developing social solidarity. Of them a French educator says, "Let us note, therefore, without pride, but at the same time without foolish modesty, the part which this unobtrusive government employee (the teacher) takes in the work of social renovation which is going on under our very eyes and which tends more and more to replace narrow individualism by the principle of unity and the spirit of coöperation." The individual initiative of the teacher finds play in organizing such coöperative activities as the needs of the particular community suggest. There are local loan funds, community nurseries, cattle insurance societies, coöperative bakeries, etc.

The mutual benefit associations, organized in the schools in 1887, had in 1894 a membership of ten thousand children, and by 1914 in the four thousand branches, a membership of 875,000 children between the ages of three and thirteen, and of 100,000 adolescents between the ages of thirteen and eighteen, grouped in special sections. The salient features of these associations are voluntary membership, weekly dues of ten centimes (two cents) divided equally between a general relief fund and a personal deposit toward a pension, and annual benefits of a million francs to sick children. Branches are found in the *lycées* and *collèges*, as well as in the primary schools. In parts of France is the forest benefit association, which is reforesting bare hillsides. In 1902, fifty branches of this association in the department of Jura planted 200,000 trees. Preventive hygiene is also a part of the program of the Mutual Benefit Association. Some of the surplus is used to send weak or anemic children on long vacations or to support open-air schools. Three hundred sickly children were sent to a forest colony in 1915–16. During the war child members in uninvaded areas refused to divide the surplus accruing each year, but set it aside to help members in the invaded areas.

Edouard Petit says, "The school benefit association is the best known and most popular institution through which social education is organized and strengthened in the school. It permeates the school and is a living, convincing lesson in coöperative ethics. It is of a practical, tangible nature. It establishes a bond of common interest among all the societies included within its membership, amalgamates them, and cements them into a unified whole." The control of this association is largely in the hands of teachers and officials.

In 1910–11 there were in France 6,541 Associations of Former Pupils of Primary Schools, and 1,800 athletic societies of one

kind or another, the majority of whose members were young adolescents. The report of the inspector general to the minister of public instruction in 1902–3 says of the work of these societies:

> One feels himself in the presence of a young new world which is being born into the customs of conscious democracy, voluntarily disciplined. . . . What spirit in the organization of fêtes, and such earnestness as follows when in the committee meetings there are considered the admission of members, the by-laws, the internal regulations, the subjects of conferences. . . . The associations of former pupils become for the working and rural adolescent the school of liberty, itself. The common purpose is to recreate, instruct, to give mutual help. . . . To-day, thanks to them, the school grounds in the better cities and villages are entirely transformed. Demountable stages and built scenery painted by voluntary workers, improvised show troupes, orchestras, choral groups, often fill with color and sound the vast classic rooms Saturday evenings and Sunday afternoons.

These groups have made a start in evening classes. They have made the school a real community center. The young people take the initiative themselves. Such societies are one of the most effective means employed by French education to teach young people to live coöperatively, and they develop a social solidarity that rests upon a firm foundation.

The Boy Scout movement was seriously hampered by the war. Since then it has been developing rapidly. In 1921 there were approximately ten thousand scouts in France. Scouting is of unquestioned value for good civic training. Its development in France is in keeping with the ideals of her educational leaders in moral-civic-social education.

Between 1899 and 1904, 1,311 pupils took "school excursions" to such historic spots as the Marne, Aisne, Ardennes, and Versailles. Pupils receiving a mark of "very good" in attaining the certificate of primary studies are eligible to go on these excursions. The children of the primary schools select by ballot those who are to go. Careful observations and reports of the trips are required. Some civic training is received from these excursions, though comparatively few pupils have the opportunity to go on them.

What is the value of each of these means of providing social-moral or civic training?

Stories in readers and other books have their value. We cannot consistently deny a good influence from good books and stories, and at the same time affirm a bad influence from worthless or bad books and stories. Apart from giving some information and helping form ideals, the chief function of good stories and books is to arouse those feelings and emotions which impel to desirable action. Their value is limited if used apart from a situation in which the emotions may be expressed in action. Arousing the feelings and emotions and not providing for their expression in action tends to develop a type of person that is sensitive to right and wrong, that feels keenly any civic or social injustice, but that does nothing. The good citizen is, upon occasion, aroused thoroughly, but his emotional stimulation leads to activity. To divorce emotional appeals from responses by action, is to develop an emotional, incompetent citizen. This method cannot be the chief one used in training boys and girls *now* to be good citizens when they are men and women. Civic and moral education in both France and the United States has relied too much upon this method. Biography will, of course, always be useful in securing right emotional responses, in developing right attitudes and ideals, but it must be joined to actual participation in social-civic affairs, if it is to be most effective.

Textbooks and materials giving formal civic data can be used, especially with older children, to give information. They can best be used to supplement observation of and participation in civic or other group activities. Formal lectures and conversations on civic and moral topics are of little value, and ordinarily do little more than to give more or less ineffectively some information. We must recognize frankly that the memorization of facts, summaries, moral maxims, precepts, and outlines is a rather

colorless substitute for the real, vital knowledge and experience that come from active, coöperative participation in some group activity. Such a method does not stimulate thinking, but encourages the thoughtless acceptance of facts. Much of the time devoted to this kind of civic instruction, both in France and the United States, could well be devoted to something else. There is no lack of vital civics material.

Informal discussions in which the children take an active part, may be a good means of clarifying ideas, but the topics must be real to the children, must come from real situations in which they find themselves. Such discussions, however, may well lead beyond the immediate situations out of which they arise, provided reality or interest is not lost. Incidental, personal talks and conversations are of value many times. Often a teacher of rare insight, sympathy, and tact "gets hold of" a pupil in this way.

Actual observation of civic activities and institutions is a valuable means of securing first-hand information that is real, interesting, and vital. To the extent that civic instruction is isolated from the affairs of the community and becomes and remains merely a matter of textbook study, it loses its educational force. French civic education probably devotes relatively too much time to formal textbook civics—American civic education certainly does. Knowledge is necessary, but should be acquired in the most effective ways possible.

Modern sociology and psychology indicate that the best way for people to become members of a group is by their thinking, feeling, and acting as part of the group as it works to attain its ends. The best method, then, is the one that provides for a maximum of participation in group activities with a minimum of outside control to insure that the activities reach a worthwhile, or at least harmless, end. French educators have discussed under the name "social education" that which seems to be the most valuable part of the civic training of their youth—the various associations, benefit societies, extra-curricula activities, to which reference has been made. These activities become valuable to the extent that the young people themselves control and direct them with a minimum amount of guidance by teachers or other adults. Properly organized and directed, they develop initiative, responsibility, self-imposed control, coöperation and group spirit, and desirable social habits, ideas, ideals, and attitudes. In so far as they are directed entirely by teachers or other adults, the young people being more or less passive, without initiative or responsibility, they fail to give a wholesome training for citizenship in a democracy. Social solidarity can and must be attained without training people to be passive, obedient, nonparticipating citizens. A large number, but still a minority, of American schools are to-day using various coöperative group enterprises as part of the regular school procedure. Apparently France has done but little in this direction. France has, however, done much in using extra-curricula activities, especially in the case of young people who have left school, for whom she has probably done more than we have in the United States. At the present time such activities seem to be increasing in number and influence.

In a truly democratic society education should provide (a) the largest amount of free interaction of different social and economic groups so as to develop such habits of mind as "secure social changes without introducing disorder," and (b) the greatest opportunity for each individual to make his own choices so long as he does not hinder others in doing likewise, and does not act contrary to the general welfare of the group.

The stratification of society places a great difficulty in the way of allowing groups to come to a sympathetic understanding of each other, and it prevents much freedom of choice by the individual. In a stratified society the very school the child attends, the group in whose activities he participates, his ideas, ideals, attitudes, and many of his habits are controlled and defined by the class to which he belongs. Education tends to become undemocratic to the extent

that group membership is based upon social class to the exclusion of other group activities in which individuals of different social groups participate. A system of education that tends to preserve from one generation to another a given stratification of society is in so far undemocratic. French education is democratic to the extent that it provides for activities by individuals of different social levels in the same group. This does not seem to be done to any large extent. In the United States we have this same problem developing, and at the present time we have no satisfactory solution for it.

French social solidarity seems to be explained by five facts: (1) There is a body of civic knowledge that is the common possession of the people. The lectures and discussions of Professor Berteaux in the United States in 1919 indicate that military patriotism is regarded as almost synonymous with morality. But France had just emerged from a long desperate struggle for existence and the extreme emphasis upon the military element in morality may be due to this abnormal condition. We do know that many of the educational writings in America in 1918 show a lack of poise and balance usually present in a period of less national stress and strain. For example, one of our states issued a war-modified course of study in spelling for seventh and eighth grades that said: "See that the pupils spell and pronounce properly all the names on the following list of war names." Then followed the New York *Evening Mail* list of 424 foreign names, of which the majority were names of French towns with their well-known difficulty both of pronunciation and spelling. (2) Family ties are strong. (3) The population has been homogeneous for about four centuries. (4) Young people and adults participate in the various coöperative associations, young people's societies, etc. (5) There is a constant threat of invasion, which has exerted a powerful influence in uniting various groups and social classes. In some measure this fear for the future, based upon a realization of certain population facts, is an important element of that background upon which French national policies must be seen to be fully understood.

EDUCATIONAL AIMS—HOW TO STATE THEM

D. J. MacDonald

NO ARGUMENT is necessary to establish and maintain the position that any sane person when assigned a task is reluctant to act until he knows, or thinks he knows, what is required. Regardless of the source of information and the method employed in placing it before him, action is delayed until the object in view is known. The truth is, we ridicule freely, and rightly so, those who have the habit of starting to do things without knowing definitely the results desired. Yet, despite this fact, it is the exception to find teachers who have anything approaching a clear conception of what they are trying to accomplish in terms of human product, not to mention possessing a consistent philosophy of education.

At its best teaching is an art; in fact, it can never be anything else, for the simple reason that two variables are ever present. But its experimental possibilities need not lightly be cast aside, simply because it is not and cannot be a science. The artist must as truly know what the end of his action is to be as the scientist; else he is at a loss to know how to govern his actions and decide upon methods of procedure. For as Doctor Dewey well indicates:

> The aim as a foreseen end gives direction to activity. First, by involving careful observation of the given conditions, to see what are the means available for reaching the end, and to discover the hindrances in the way. Second, by suggesting the proper order or sequence in the use

of means. And third, by making choice of alternatives possible.

That indefiniteness and indecision prevail regarding the objects to be attained by and through life experiences, more commonly termed "education," is evidenced on every hand. Attendance upon a few teachers' meetings, examination of current magazine articles, or even a perusal of newspaper editorials, will amply convince one of this fact. During the past decade the writer has questioned many administrators relative to the most pressing educational needs. The reply in a majority of the cases has been: "A better-trained teaching staff." When interrogated as to the outstanding weaknesses of teachers, the response has almost invariably been: "They do not seem to have a definite conception as to what should result from their efforts." Persistent inquiry resulted in the revelation not only of wide disagreement but exceeding vagueness among administrators regarding what the goal of education in a democracy should be. Is the reader surprised that teachers are traveling their own separate ways without clear ideas of the end in view?

Recently following a discussion as to the objects of education in a class composed of vocational teachers, the members were asked to state concisely the specific products in terms of human capacities, powers, dispositions, etc., that they were hoping to have result from their teaching. (The object was, of course, to lead the men away from "glittering generalities.") The fourteen responses were:

Goals mentioned	*Times mentioned*
Trade knowledge and skill	13
Self-reliance	6
Self-directing power	4
Thinking power	4
Initiative	1
Originality	1
Sense of system and organization	2
Respect for teachers and authorities	5
Coöperativeness	1
Social serviceability	4
Moral sense and standards	8

This summary of the answers was given to each student with the following question: "What are your conclusions regarding the above?" The first response called attention to the singular fact that a teacher of manual work had not included trade knowledge and skill among the goals. A second pointed out the obvious overlapping of the factors. Another insisted that the size of the list, together with the number of persons mentioning specific goals, indicated conclusively that as a group they could not be considered as having any distinct goal except trade knowledge and skill.

Since the time seemed opportune, the next assignment was: "Consider for the present that the ends of education are: (a) the acquisition of general and specific knowledge and skill and of proper emotional and intellectual attitudes and dispositions; and (b) the establishment of habits of initiative, originality, industry, self-direction, self-control, adaptability, economy, coöperation, social service, respect for authority, reverence for elders, honesty, etc.," and check in order of preference, (a) the five specific characteristics upon which you are now placing chief emphasis in your teaching; also (b) the five you are emphasizing least. In the table below, which is a compilation of several of the replies, the figures indicate the relative rankings given to the many factors by the different class members. For example, self-direction is given chief emphasis by two teachers, fourth place by another, and second place by another.

	Least emphasis					
Social service	1	1	1	2	1	1
Reverence for elders	2	1	3	2	3	3
Respect for authority				3	4	5
Adaptability			4	4	2	1
Honesty			4	5	3	4
Initiative					5	4
Economy			3	2	5	3
Originality					4	1
Coöperative					5	5
Self-direction				4	2	2
Industry						4
Self-control						1

Most emphasis						
Self-direction			1	1	4	2
Industry	2	4	4	1	2	1
Economy				3	5	5
Originality				4	1	4
Co-operative	5	3	3	3	2	
Self-control					2	4
Initiative				2	3	3
Respect for authority				5	3	5
Honesty				4	1	1
Clear Thinking						1
Adaptability						5

Despite the fact that the limited number of replies is entirely inadequate for scientific purposes, one may doubtless safely conclude from a study of the data that, if any unanimity in belief and uniformity in practice prevail in the group of teachers, it is due to accident rather than to any controlling purpose. If, when generalized statements as to the objects of education are cast aside in favor of specific ends, thinking men in the profession differ so widely as to what should be sought after, can we longer conscientiously neglect a more definite consideration and a more limited statement of goals?

It is a well known fact to close students of human nature that, when one is engaged in performing an operation of any kind, he finds it exceedingly difficult, in fact, quite impossible unless highly trained, to hold in mind at one time very many distinct qualities or attributes of the end or object. The inevitable tendency is to hold the attention upon one or two, or at the most three or four, of the attributes desired and utterly neglect the remainder. What supervisor has not repeatedly experienced seeing his teachers fail to make any connection between obviously understood theory and daily practice? Is it not notoriously true that teachers and supervisors totally disregard the fact that, when pupils are mastering a certain operation, one may not with impunity keep calling attention to two or more desired attributes of the product, as, for example, accuracy and speed in workmanship? Or expect a teacher to improve by a method that holds up before her constantly a half dozen or more apparently distinct weaknesses, such as (1) doing too much talking, (2) asking too many questions in a given period, (3) using incorrect English, (4) neglecting certain pupils, (5) permitting pupils to use incomplete sentences for replies, (6) doing too much for the pupils, and so *ad infinitum*? The result in such cases is inevitable. The learner becomes so discouraged that he is in no proper emotional attitude to develop as he should, or so disgusted that a rebellious rather than a co-operative spirit dominates, or, finally ignores adverse criticism and proceeds more or less recklessly as if it had never been given. As a matter of fact, improvement in ability to do under such hopelessly incorrect methods of direction is due to the learner's immunity, rather than to the ingenuity or skill of the director. The psychology of attention, together with the psychology of habit formation, must be given adequate recognition in statement of aims.

Who among students of education has not discussed hour after hour the meaning of such statements as "social efficiency," "harmonious development of all of man's powers and capacities," "preparation for complete living," etc., without reaching any definite conclusions? This does not, however, necessarily mean that those engaged were not helped thereby. On the contrary, they doubtless profited. But while this is true, one may safely venture the assertion that a product in terms of human attributes observable daily in some form in the class-room, comprehensively yet intelligibly defined, was not agreed upon. It is extremely probable that vagueness rather than definiteness, and broadness rather than narrowness, characterized the deliberation and conclusions. A statement of ends to be utilized day after day in a class-room by teachers must be specific without being narrow, and comprehensive without being vague—one that may be kept in mind when a class in arithmetic is in progress, when James is being given assistance in English, or when some unknown pupil has committed a serious misdemeanor. To expect the average teacher to conduct herself properly in such

diverse situations, without a more intimate goal than "a socially efficient individual," would be a joke if it were not so tragic in results. Even at the sacrifice of breadth, if necessary, the objects of education must be couched in such language as to be intelligible and retainable. Administrators should use the mirror frequently, lest they be among the number who expect their teachers to move toward a common and appropriate goal, when they have failed to provide guide posts.

The experience of a manufacturer whose employees could not be induced to wear goggles when doing hazardous work, in spite of all the ingenious devices contrived by him and his foremen, well illustrates this point. This employer was in constant trouble due to the refusal, as he thought, of his men to follow his instructions. As a result, he was not only being called upon to face a continuous decrease in output but to settle daily claims for injuries. He had already exhausted his resources in preparing and distributing printed instructions advising the use of goggles, later accompanied by threats of dismissal unless obeyed. But the injuries continued without abatement. While in New York City shortly afterward on a business trip, he noted with surprise how workmen of the same nationality he had in his employ bought newspapers and eagerly examined certain pages. He watched closely and detected unmistakable signs of intelligent appreciation of the paper's message. Further observation convinced him that the artist's efforts, together with the simple legends accompanying them, were to an appreciable degree intelligible to these workmen. Here was his clue. Forthwith, upon reaching home, he had some appropriate drawings made, suggesting as well as possible that injuries might be prevented if goggles were worn, and, as before, placed goggles close by. In an incredibly short time trouble from this source ceased almost entirely.

It may appear unnecessary to some to emphasize the necessity of stating educational aims in terms of social needs. But one conversant with recent controversies regarding this matter, will readily admit such necessity. That both sides in the controversies were desirous of bettering social conditions goes without saying. But whether both equally strove to state the aims of education in terms of dominant social needs is doubtful. The natural tendency to continue along beaten paths and to seek to defend one's action in terms of wonderful records of the past is not less strong in educational circles than in political or religious. Despite our reluctance to admit it, the "whatever is, is right" doctrine controls our actions rather fully. However hard some persons strive to overcome this tendency, one invariably finds them among the "stand-patters" defending past practices. They always run true to form.

Naturally such persons protest against any marked changes in educational practice and religious formalities, though they are as likely as not to be among the number whose system of business management has been entirely changed or whose recreational activities have been greatly modified. Not infrequently they manifest astonishment that their children are disinclined to pursue subjects that they studied two decades ago. Yet even to suggest to these persons the advisability of trying to get along without the automobile, telephone, victrola, paved roads, or mail deliveries, is but to insult them. Their children actually attend school held in condemned buildings and conducted by condemned teachers, because they will not or cannot shake themselves free from traditions and think of the school's obligation to reflect the life of to-day, as truly or more so than the school of twenty years ago reflected the life of that period.

The school as one of society's institutions has for its function that of serving the dominant needs of society. To say that whatever society at its best aspires to be should be found in its program is to utter a commonplace. Educational aims should be cognizant of society's aspirations and conventions, as well as of its direct bodily wants and needs. But the idealistic cannot be given undue attention without society defeating its very purpose, namely, "the acquisition

of those attitudes and dispositions necessary to its continuous and progressive life." On the other hand, constant emphasis upon the miscalled "practical" to the exclusion of the miscalled "liberal" studies would be just as objectionable. The plea is not merely to take middle ground, but to take justifiable ground. On one side are all the inherited capacities and acquired powers of the youth, while on the other is the whole of society struggling here successfully, there unsuccessfully, to master its colossal problems and thus insure its perpetuation. For society to neglect either is to defeat its own aims.

Reluctance to undertake the task of critically examining itself and its needs may seem excusable because of the magnitude of the work, but to hope to enjoy continuous and progressive life without doing this is vain. For years sociologists and economists neglected or refused, and to their detriment, to attach due weight to psychological and biological factors, particularly the former. But their sin was no greater nor more far reaching in effect than that committed by psychologists in isolating themselves and failing to give due consideration to socio-economic problems and their significance in planning and prosecuting a constructive educational program. Strangely enough, we still seem to labor under the impression that educable beings need be considered only in part in our educational policies. We forget what scientific study has abundantly revealed, that "development concerns itself with the sum total of activity of a living being, the activities of all his fellow beings." How hard it is for us to appreciate and practise: "No man liveth unto himself," to look upon society's methods, conventions, and customs as the only appropriate subject matter for making possible to our youth the kind of development they should enjoy!

Our consideration demands, moreover, that the society to be reflected in the statement of aims shall be a democratic one, as Doctor Bagley has said, "governing its own affairs, where the collective will is backed up by a collective intelligence of high order and where also the level of common ideas, ideals, and aspirations is high." Or, to quote President Wilson's test of democracy: "One where we do not want to go off into separate camps or groups, but where we want to coöperate with all other classes and all other groups in a common enterprise which is to release the spirits of the world from bondage."

The keynote, obviously, is that spirit of coöperation made possible only through the right kind of intellectual and spiritual experiences. To one conversant with the present world conflict (and how appallingly incapable many citizens are of thinking in terms of others!) it is apparent how far short we have fallen in our endeavors to realize a true democracy. That conditions in the form of more or less hostile camps exist in our industrial world, necessitating such remarks from our ex-President, eloquently proclaims our shortcomings and furnishes ample evidence that the democratic type of government is still in an experimental state.

Inherent tendencies in the form of personal ambitions for wealth, honor, and prestige, fostered by laws which place private property and private rights before public welfare, must receive different and more consistent attention, if we wish to avoid calamitous results. Spasmodic efforts for promoting the development of the right kind of attitude toward "the other fellow," together with a disposition to think seriously and constructively on important economic problems, are availing little. Actual practice of the principles of democracy by certain prominent industrial firms; e.g., the National Cash Register Company, the Larkin Company, the Ford Automobile Company, while temporarily disrupting to industry, has had and is now having a wholesome effect upon society, because of insistence on regard for the welfare of all persons concerned. That the methods have always been free from defects is not to be expected, since these companies are pioneers blazing a trail in the wilderness of public welfare. The hopeful thing is that they are trying to administer in terms of the great "brotherhood of man" principle, the *sine qua non* of true democracy. It is easy to believe, as many

students of social conditions maintain, that the awful purging operation necessary to a better understanding of one another, to a truer appreciation of human interdependence, is now in progress; that "man's inhumanity to man" will be reduced inevitably thereby, because men heretofore disassociated and therefore uninformed or misinformed regarding respective viewpoints, could not and would not coöperate. The intelligence and sympathy demanded in order that the ideal of public welfare be substituted and maintained in place of the present unworthy one of private property and rights, must constitute an important part of any statement of educational aims, if the statement is to merit the respectful attention of thoughtful persons.

PEDAGOGICAL ALIBIS

MARY–BESS M. RIGGS

I CAN'T begin to cover my assigment this year, but it's not my fault so I'm not letting it worry me any. The pupils I have ought never to have been passed into this grade. No wonder Miss Blank dodges me when. . . ."

". . . gets as much as I do and doesn't do half the work. I corrected papers nearly all day last Saturday, so I'm not going to bother myself about going with the class on its. . . ."

". . . acted like I was tardy. I'm sure the clock in the hall. . . ."

". . . people in this town ostracize the teachers socially. Oh, yes! I've had a few callers, but no one interesting, so I'm not going to return the calls. I don't think I'll teach here another year anyway. The salaries out West are so much higher. Why, I know a girl who gets. . . ."

"Heck, no! I have no intention of helping with the play. A school of this size ought to have an expression teacher. I'm not paid to do outside work, and I don't see any reason why I should work myself to a frazzle, even if I did take part in college theatricals. The pupils don't appreciate. . . ."

"I. Q, and standard tests take too much time. I don't see the use of them. We could do so much more real teaching if we cut down on so many newfangled notions and the requirements of a few useless supervisors and inspectors. . . ."

". . . not go to the University this summer. I'd like to have a degree all right, and if I'm still teaching when I'm 'fat and forty.' I'll have one by then, but this summer, I've other fish. . . ."

". . . in the world did he call a teachers meeting for to-day? I simply have to go to town to have my hair. . ."

". . . too many in my room, and not only that, but every year they seem to pick out the dull ones and pile them in on me. A compliment? Humph! I can't see it that way, and so long as they keep half-way decent order. . . ."

". . . a regular book-worm, if I do say it. I have read so many books on education, and I just haven't time for those reading circle books, and as for subscribing for a professional journal, surely they don't think money grows on trees."

". . . break my contract. No one expects you to keep it if you get a better offer. Hard on the Superintendent? Say, don't you think he is ever hard on. . . ."

". . . go to Teachers' Association? Not I! I haven't a thing to wear and they never have anything interesting about my work. A lot of men get up there and talk and talk and talk. Honestly, they haven't anything on the women when it comes to not knowing when to quit."

(That last sentence fortunately acted as a boomerang and brought this paper to a close.)

EDITORIALS

New York's Contribution to Louvain

Throughout educational circles in the State of New York, interest in the campaign to raise funds for restoring the library of the University of Louvain, has grown most keen. School officials, teachers, and pupils have come to understand that this building will stand not only as a tribute to the Belgian people, but primarily as a memorial to our American boys in the World War. It is not merely a monument upon a battlefield, but a living memorial. It will carry into other young lives the training that will fit them to spread the enlightenment which has emanated from this historic university for five centuries.

Contributions have been received from colleges and universities, and from public, private, and parochial schools. In the school system of the State, boards of education, superintendents of schools, principals of high schools, and teachers in the one and two-room schools have alike joined in the movement with enthusiasm. The public schools of New York City, under the effective leadership of Superintendent Ettinger and Associate Superintendent O'Shea, lead the state with a total not far from forty thousand dollars. While the returns are not all in, other contributions, ranging from that of seven thousand dollars from the parochial schools of the archdiocese, and of over one thousand dollars each from several cities, such as Rochester and Albany, down to the few dollars each given by small country districts located up in the Adirondacks or at other remote points, indicate that the desire to be represented in this memorial to American heroism is not confined to any one class of schools. The name of The University of the State of New York—that constitutional body which embraces all the educational activities of the Empire State—will be inscribed on one of the forty bells of the carillon that will daily ring out from the tower of the library the national airs of the Allies. Over one thousand dollars was raised for the purpose of securing this honor by the regents, members of the State Education Department, and some of the district superintendents. That the University of the State of New York should be so represented seems particularly appropriate, not only because it is the head of the educational system of the commonwealth, but because the war hero, Cardinal Mercier, whose heart is bound up in the project of rebuilding the library, is one of the eight living men upon whom it has conferred its honorary degree of Doctor of Laws. The ten normal schools of the state have jointly raised the necessary amount for another bell.

Not only have the contributions been generous everywhere in the state, but the object sought by the committee in charge has been fully achieved, for New York's share in building the library will represent the nickels, dimes, and dollars given by nearly two million pupils, teachers, and officials of the schools of the state. But beyond all else a high note in patriotism and the spirit of sacrifice has been sounded in schools of all classes. The pupils in the DeWitt Clinton High School of New York City, for example, gave nearly fifteen hundred dollars, although most of these young men have little spending money. To accomplish this, numbers of them saved their contribution out of carfares by walking to and from school, and others raised small sums by selling at informal auctions cherished possessions, such as ties, baseball bats, and mits. As the superintendent in another city expressed it, "No pressure was used, but we stressed the point of trying to create in the minds of the children an honest desire to help in this great work. I believe that the contribution coming in this way brought to all the children great spiritual blessing." And the principal of one of the largest nor-

mal schools declared, "The presentation of the Louvain appeal was strongly patriotic but it accomplished so much more because of the high spiritual note sounded. The pockets of our students were touched, but their hearts and consciences were also reached. And this, it seems to me, constitutes the highest form of appeal."

The development of the movement in New York to restore this time-honored institution of learning and to raise a monument to the sacrifices of American youth in Flanders will probably be duplicated by every state of the Union in proportion to its means. It would have been an easy matter for President Butler, the national chairman, to have raised the necessary funds for this restoration any morning by a telephone appeal to his wealthy friends, but he most appropriately chose to give the schools and colleges of America an opportunity to share in the memorial. And the pupils, teachers, and officers have responded nobly to the call.

Academic Illustrations of the Galtonian Theory

One of the most far-visioned scientists of the "wonderful" nineteenth century was Francis Galton. Explorer, geographer, meteorologist, anthropologist, biologist, and psychologist by turns, he enlightened us concerning a variety of interesting but perplexing problems in physical, mental, and social life. He seems to have devised the questionnaire as a method of investigation. Composite photography was invented by him as a means of bringing out typical facial characteristics of a group. He was the forerunner of Bertillon and "Pudd'nhead Wilson" in utilizing finger prints as a basis for identification. Present day psychology was anticipated by him in the creation of statistical methods, by which quantitative accuracy can be introduced into the complicated phenomena of mental life, and educational practice given the convincing character of science.

But his greatest contribution came through uncovering the recondite laws of heredity. His law of "filial regression," while it does not enable us to make any definite prediction concerning the characteristics of a particular child, as Mendel's formulation of "recessive" and "dominant" qualities does, at least shows what the average tendency will be, and explains why children of exceptional parentage tend to approximate more nearly to the common type. In general, he tended to over-estimate the part played by heredity in determining genius and eminence. This is not remarkable when one recalls his own extraordinary ancestry on both sides, and his kinship to several great minds of his own age. Such a conclusion is the natural product of an unconscious and pardonable pride of birth, and has similarly been arrived at by Oliver Wendell Holmes and other New England Brahmins. While it led to the classic controversy with Lester F. Ward as the protagonist for the prepotency of the factor of environment, Galton's thesis was astonishingly substantiated by the data he produced. He made it quite apparent that, as far as England was concerned, the "one man in ten thousand" is closely related by blood to a dozen other geniuses.

While the multiplicity of strains and the migratory habits of our people would make it quite impossible to carry out satisfactorily a similar investigation in the United States, a casual glance through *Who's Who* or any other list of prominent Americans, reveals most clearly the fact that "blood will tell," even if it does not tell everything. Looking only at the present generation and at single families, evidences of Galtonianism are all about us. Academic distinction, which is least susceptible to fictitious influences, furnishes us with innumerable illustrations. There are, for example, the Willoughby twins, running neck and neck for preëminence in economics and political science. An equally good illustration can be found in the case of the Van Dykes, McMurrys, Deweys, Montgomerys, Lowells, Harpers (now deceased), Jameses, MacCrackens, Scotts, Fites, Boltons, Clarkes, Penroses, and dozens of other fraternal pairs. Perhaps the most interesting eminent brothers at present are Harry Emerson Fosdick,

the scholar, theologian, and spiritual leader, and Raymond B. Fosdick, the sociologist, writer, and executive. They are the sons of a retiring, but able, high school principal in Buffalo, who always makes the modest disclaimer: "But you should have known their mother."

Nor are we limited to couples. Think of the three Farrands—Wilson, Livingston, and Max—all sons of the same well-known schoolmaster. The eldest runs the old academy of his father with even greater efficiency and prominence, the second is rapidly bringing Cornell University into hegemony among American institutions, while the youngest is a leading historian at Yale and Director of the Commonwealth Fund. Similar is the case of Ashley, Edward, and Lynn Thorndike, who are among the foremost university professors in their respective lines—English, Psychology, and History. There are likewise several other trios of distinction, and occasionally we run upon a quartette, like the Prices, of whom the eldest is one of the greatest Semitic scholars in the world, the second a noted college president, the next the principal of a great academy, and the youngest a dean in one of the largest universities when still in his early twenties.

How much further we might go, if we could trace out the married sisters, half brothers, uncles, aunts, grandfathers, and cousins to the remotest degree, is somewhat problematic, but it is safe to say that in every family of any size, where a member has distinguished himself, we should probably be able to find at least one mate for him. The academic world today, without effort or research, furnishes a veritable host of illustrations of Galton's theory.

Teachers College and Its New Library

It was encouraging to educators to learn recently that Teachers College would be able to raise the two million dollars required to obtain a conditional gift of one million from the General Education Board. The donation of the Board is to go to the endowment fund, but the money that has been subscribed is to be used for the erection of a new library building. While most of this guarantee fund has, as in the case of past donations, been given by the trustees and a few other benefactors of large means, a gratifying feature of the campaign has been the part played by the students, faculty, and alumni of the institution. The amount raised by these adherents was relatively small, but it marks real sacrifice on the part of some thirty-two hundred persons who understand the value of the College through personal contact and are most appreciative of the benefits they have received. Such silent testimony speaks more loudly than any praise that can be given the institution.

Teachers College deserves far more than it is ever likely to receive. It is unique in its service and influence. Its achievements seem almost incredible. Certainly no one would have forecast such a development twenty-five years ago, when Doctor Russell began his deanship at the institution. The College has become not only a most important factor in the educational life of America, but its influence is keenly felt in every quarter of the globe. It has a body of former students exceeding fifty thousand, more than one half of whom are at present engaged in education. It is a national institution, serving every state in the Union. It has had a part in preparing one out of every seven trained teachers throughout the United States, and has until recently enrolled more matriculated graduate students in Education than all the other colleges and universities of this country and Canada combined. Through its summer enrollment it serves a far greater number of mature students of Education than any other institution in the world. Among the graduates of Teachers College in this country are some twenty-five presidents of colleges and universities—mostly leading institutions, nearly twice as many normal school principals or presidents, thirty deans of Schools of Education, ninety deans of women, nearly three thousand college professors, over five thousand teachers and supervisors in normal

schools, seventy prominent state or federal officers of education, over seven hundred city superintendents, almost as many high school principals, and more than seven thousand other supervisors, principals, and directors.

So much for the home land, but the influence of Teachers College in foreign countries is even more remarkable. It has trained over two thousand foreign students, and at present has on its rolls nearly three hundred from more than fifty different countries. These include not only all the leading states of North, Central, and South America, but also of Europe, Asia, Africa, Australia, and even the islands of the sea. Former students are found in the most unexpected places. Professor Paul Monroe, on a recent visit to Japan, found eight graduates of Teachers College in a single town near the southern limit of the Empire, and later eight others in the extreme northern end, and all of them held places of responsibility. Numerous Teachers College graduates are to-day scattered throughout China, occupying a number of high administrative posts. About fifty Chinese are at present attending the College. The educational system of the central states of Mexico is directed at present by three officials, two of whom are alumni of the College. The supervision of the elementary schools is entrusted to one, and of all the secondary schools to the others. In fact, all of the Latin American and Oriental countries are looking to Teachers College for educational assistance, and are represented by students. Even in the interior of remote lands the prestige of Teachers College is recognized and draws students from across the seas. The son of a Rhodeian chief proved one of the most brilliant students that the institution has known. And among the recent arrivals at the College have been three men from South Africa, who have been sent by their government. Two other students from the same country were already enrolled, and three more had recently returned home, at the conclusion of their courses, to occupy responsible positions. Perhaps more significant of the relative importance of this educational institution of the Western world is the fact that a descendant of the classic Greeks lately entered Teachers College, after graduating from St. Paul's College at Tarsus. And this catalogue of foreign students might be continued indefinitely.

One may well wonder how an institution of so much influence got started in the City of New York. The origin and development of Teachers College, marvellous as they seem, are easily understood and are so recent as to be well within the memory of many. The College began in 1888 as a little undergraduate teacher-training institution devoted especially to manual training and domestic science, which were at that time taught scarcely anywhere else in New York. It was at first known as The New York College for the Training of Teachers, but after five years this was shortened to the present name. During the early period it was presided over by a young instructor in philosophy at Columbia, who later became the distinguished president of that institution. The great development of Teachers College that took place subsequently may be attributed in large part to the interest that ever-changing America has naturally had in educational reform, and to its location in the metropolis of the country, in connection with a stable, broad-visioned, and inspiring old university. But this institutional connection was not achieved until 1898, with the deanship of James E. Russell, and was fortunately accompanied by a provision for an independent budget, which has saved Teachers College from the academic conservatism of the rest of the university—an influence to which all other university Schools of Education have more or less succumbed. Nor can too much praise be given the broad-minded and generous Board of Trustees, who have given about five-sevenths of all that Teachers College has received in donations. Such names as those of Grace H. Dodge, Everitt Macy, and Mrs. Willard D. Straight should be enshrined in the annals of American educational history. Moreover, in Dean Russell was found a

leader with the necessary breadth, imagination, knowledge, and tact to hold together all these propitious forces and produce the great cosmopolitan institution that Teachers College has become.

From his installation dates the real development of the College. In addition to the undergraduate work in the practical arts, graduate courses in those lines and in every other field of teacher training has been added, research has been organized in all departments of education, and professional preparation for educational administrators and other higher officials has been organized. The College now occupies six connected buildings, and owns thirteen acres of land on the outskirts of the city, two large schoolhouses, and two dormitories adjoining the main College buildings. The entire plant and equipment are probably worth considerably more than six million dollars. Nearly all of this property has been accumulated in Dean Russell's time. While much of the undergraduate work has been given up, the students have grown from less than two hundred to considerably over four thousand, one quarter of whom are taking graduate work. About nine thousand students are enrolled in the summer sessions.

Hence has arisen the crying demand for the new building and the additional endowment, for which provision has just been made. The present endowment, including trust funds for specific purposes, amounts to less than two million dollars, and the College has been largely dependent upon the earnings from its preparatory schools and the efforts made each year by Dean Russell to secure contributions to cover the deficit. It is only through the indefatigability of the dean and the devotion of Teachers College trustees that the institution has remained solvent. While the addition of a million dollars to the endowment will ease matters somewhat, there will still be a struggle to make ends meet. Moreover, the growth in students has nearly swamped the buildings of the College. Especially has it made the library facilities utterly inadequate. Stack and reading rooms have been seriously lacking, and much material that would be extremely valuable has not been catalogued for want of space. The expansion of the present library has necessitated the commandeering of class rooms, which are greatly needed for their legitimate purpose, and has crowded the administrative offices into quarters entirely unsuitable for keeping the records and housing the workers. Similarly, to serve the immense number of students, especially in the summer session, every available room in the College has been in use from eight in the morning until ten at night. Even then the classes have in many instances been far too large—sometimes mounting into the hundreds; yet lack of rooms has prevented division into sections.

The new six-story library building will afford a tremendous relief. Four entire floors will be devoted exclusively to library purposes, and each floor will contain cataloguing, delivery, and reading rooms that are adequate, conveniently arranged, and well lighted. Ample space will be given to study and conference rooms, and one floor will be assigned exclusively to the use of graduate students. The entire tower will be utilized for stack rooms, and vaults for valuable material and records will be provided. Likewise, the administrative offices of the College will be accommodated on the first floor. Thus, with some additions that are to be made to the Dodge Building, there will be made available a large amount of space for class rooms in the Main Hall.

Such are the latest facilities and attractions to be added to Teachers College. Dean Russell has more reason than ever to be proud of his work. For, while he has been aided by many helpers of colossal strength and industry, especially his trustees, the vision and the leadership have been his. To him the whole country owes a great debt of gratitude, to which the recent celebration in honor of the quarter-centennial of his deanship is but a small tribute. He is indeed privileged to have lived to witness these fruits of his labors and the testimony of educators to his worth.

NEWS NOTES

A World Conference on Education will be an interesting feature of the meeting of the National Education Association at Oakland-San Francisco, June 28–July 6. The invitation that has been extended to the "educators of all nations" through the Committee on Foreign Relations, of which Dr. Augustus O. Thomas, Superintendent of Public Instruction of the State of Maine, is chairman, states that the purpose of the conference is "to produce a better understanding among the nations; to develop good will; to conserve the integrity of all nations; to extend educational privileges more universally; and to develop those ideals conducive to lasting peace."

The Pan-Pacific Union has already accepted this invitation and will hold a subconference of Pacific educators in connection with the World Conference. The program of this section will be organized about the question: "How can the educational agencies of Pacific countries best promote international understanding and friendliness?"

The election of Miss Ada Louise Comstock, Dean of Smith College, as President of Radcliffe College, has been announced. She will be the first full-time President of Radcliffe, succeeding President Le Baron R. Briggs, who for twenty years has been both head of Radcliffe and Dean of the Harvard Faculty of Arts and Sciences. Miss Comstock will assume office in June. Since 1921 Miss Comstock has been President of the American Association of University Women.

The election of the new President by the Radcliffe Associates was after unanimous nomination by the Committee on Choice. After the resignation of President Briggs last Fall, this committee reported in favor of a full-time President for Radcliffe, because the college had so grown as to require the entire time of both a dean and a president. The committee further felt the relations between Harvard University and Radcliffe College were so firmly established as to require no longer as president a member of the Harvard faculty serving as a link between the two institutions. This made possible the consideration of women as well as men.

An International Institute, with Doctor Paul Monroe as director, has been organized in Teachers College, Columbia University, as a result of the grant of $1,000,000 in ten annual installments made to the College by the International Education Board, recently founded by John D. Rockefeller, Jr. Dr. William Fletcher Russell, Dean of the College of Education, State University of Iowa, has accepted an appointment effective May 1, as Associate Director. The International Institute is organized for the purpose of studying educational problems in foreign lands and of training at Teachers College the increasing number of foreign students who come from all parts of the world. Scholarship aid and opportunity for field study, the cost of which has been prohibitive for foreign students, will be made possible through the fund from the International Education Board.

The printing trade, like many others, has come to realize that in the transition from old conditions to the new, the former training given to apprentices has not yet been fully replaced by the training given in schools, and it now finds that there is a lack of skilled workmen. The publishers of New York, deciding that the future of the industry is at stake and that proper opportunity to learn the printing trade is not furnished through the newspaper and publishing establishments, organized the Empire State School of Printing at Ithaca and in February graduated the first class of twelve men.

Columbia University, in its budget, pro-

vides for ten professorial positions with a salary of $10,000 each and twenty-five such positions with a salary of $7,500 each. The salaries of all other professors are maintained at $6,000 each.

Homer Willard Anderson has been appointed assistant superintendent of schools at Denver and will have charge of educational and administrative research, the building program, statistics, child accounting and publications. Mr. Anderson has been assistant director of educational research in the Detroit schools since 1920.

The State Teachers College at San Jose, California, held its annual spring conference on tests and measurements in April. The conference, which was attended by over three hundred, was under the direction of Mr. James C. DeVoss, director of the bureau of research and extension of the State Teachers College. Among the speakers this year were Dr. B. R. Buckingham and Dr. Lewis M. Terman.

The millions who have benefited by the use of X-rays will regret to learn that Prof. William Conrad Roentgen, their discoverer, died in poverty recently in Munich. Professor Roentgen believed it against professional ethics to patent his discovery, which meant so much to mankind, and, when he died, was living at the home of a friend on a pension of $50 a year.

The Yale Alumni Advisory Board has announced that a prize of $1,000 has been offered anonymously for a representative Yale song. Yale's "Bright College Years" has been its chief song for many generations, but, since the war, it has been discarded because it was sung to the tune of "Die Wacht am Rhein." A poll at the Yale Club in New York recently showed many Yale men to be in favor of abandoning it. The possibility that the words of Yale's old song may be retained is indicated by the declaraton that the award may be made "for a new musical setting for a song already available." Noah H. Swayne of Philadelphia is Chairman of the committee which will award the prize.

Francis M. Hugo, Ex-Secretary of the State of New York, has been appointed dictator for moving picture companies making educational and religious films used in churches, clubs, schools, and similar institutions. Mr. Hugo will have an advisory committee composed of fifty clergymen and educators.

Robert Ernest Vinson, D.D., LL.D., President of the University of Texas since 1916, has been called to the presidency of Western Reserve University at Cleveland. From 1908 to 1916 he was President of the Austin (Texas) Presbyterian Theological Seminary.

At the call of Professors Snedden, Smith, Clow, Finney, and Peters, some thirty persons interested in Educational Sociology met at Cleveland February 27, and organized a National Society for the Study of Educational Sociology. W. R. Smith of the University of Kansas was elected President, and C. C. Peters of Ohio Wesleyan University, Secretary-Treasurer.

In the school savings bank of Everett, Mass., $12,029.53 was deposited by 2,792 school children during the period March 15–October 31, 1922.

A notably successful campaign was completed in January, when the Women's Union Christian Colleges in the Orient announced the raising of the $2,000,000 needed to secure an additional $1,000,000 from the Laura Spellman Rockefeller Memorial Fund.

Doctor Harlan Updegraff, Professor of Educational Administration of the University of Pennsylvania, will on July 1 next assume the office of President of Cornell College, Mount Vernon, Iowa. He will succeed Doctor Charles Wesley Flint, who resigned to accept the office of Chancellor of Syracuse University.

Dr. Frank Pierrepont Graves, President of The University of the State of New York and State Commissioner of Education, as the guest of the Board of Trustees of the American University in Beirut, Syria, will represent the Board of Regents of The University of the State of New York at the inauguration of President Bayard Dodge late in June. Commissioner Graves will sail in May by the *Mauretania*, and, while in the Near East, will inspect the colleges and universities that have been chartered by The University of the State of New York. He will stop in Belgrade, Sofia, Constantinople, Athens, Beirut and Jerusalem, and will visit Robert College and the Women's College at Constantinople, the American University at Beirut, and the American School at Jerusalem. He will give the commencement addresses at Robert College and the American University and will speak at the inauguration of President Dodge. He has also been asked by the Near East Relief to visit their orphanages and to make a general report on their work. Mrs. Graves will accompany him on the trip.

On page 192 of our March issue, the excerpt from "School and Society" should be accredited to an article by Dr. Robert R. Rusk of the University of St. Andrews.

Principal J. J. Savitz of the Trenton, New Jersey, Normal School has been appointed principal of the new normal school at Glassboro. The salary is $6,500.

The American Society of Mechanical Engineers has established a scholarship in mechanical engineering in Columbia University, with an annual value of $350. Applications for the scholarship, which is open to students in every state, should be made to the secretary of the society.

Professor Philip Fox, head of the Astronomy Department of Northwestern University, has invented an instrument, called a prism micrometer, which makes possible in a quick and practical way the measurement of the sun's atmosphere, without waiting for a solar eclipse. The computations made by Professor Fox show the depth of the hydrogen atmosphere to be approximately 4,000 miles and the helium atmosphere, 3,200 miles.

Lectures on the modern history of Europe are being given this spring at Columbia, Harvard, and Yale universities, by Professor Francis Przibran, the celebrated historian of Vienna University.

Said to be a martyr to science, Dr. Edward S. Crump, a Detroit physician, died of sleeping sickness, a disease of which he had been making an intensive study for more than two years. In accordance with his own wish, an autopsy was performed in order to obtain more scientific knowledge of the effects of the disease.

An attempt has been made to explain the Einstein theory in a popular way through the use of motion pictures. Doctor Einstein is said to have declared that there are but twelve living persons capable of understanding "relativity," and the press comments that it is doubtful whether the filming of the theory will cause any additions to be made to this jury of true comprehenders.

Radio talks on education are sent out twice a week from NAA, the naval aircraft station near Arlington, Virginia, by the United States Bureau of Education.

Mrs. Abby Beecher Longyear of Brookline, Mass., has established a trust fund, to finance wholly or in part explorations in Egypt and Palestine in search of lost manuscripts that may have important bearings on the history of the Hebrew religion. The trust, to be known as the Zion Research Foundation, already has one expedition searching for original manuscripts in the Nitrian Desert of Egypt and the site of the ancient monastery on Mount Sinai. Valua-

ble papyrus has been secured by the foundation through Professor Francis Kelsey of the University of Michigan. The American School of Archaeology in Jerusalem is a beneficiary of the Zion Research Foundation.

The wage scale for the men's clothing industry in Cleveland for the coming year is to be arbitrated by Professor L. M. Leiserson, head of the Department of Economics of Toledo University.

In response to a widespread demand among both Harvard graduates and undergraduates, the Harvard Union is arranging a series of lectures to be held during the spring, on occupations and professions. The purpose is to help the undergraduates to choose intelligently their careers.

The British Government's plan for a five per cent. cut in salaries has been accepted by the National Union of Teachers by a vote of 73,000 to 28,000. While a present reduction is called for, the plan provides for annual salary increments, a thing which has never been in operation in England up to this time.

Nurses who served with the nurse corps of the army or navy in the World War will have the benefit of thirty scholarships under the action of the trustee of the estate of LaVerne Noyes of Chicago. These scholarships are distributed as follows: twenty at Teachers College of Columbia University, five at the George Peabody College for Teachers, Nashville, and five at the University of California, Berkeley.

Mr. Noyes in his will provided that the income of his estate should be used for educating men who served in our army or navy and their descendants. The total award of Noyes scholarships for the year 1923–24 will be four hundred distributed as follows: 100, Northwestern University; 40, Lewis Institute of Chicago; 20, Knox College, Galesburg, Ill.; 20, James Milliken, Decatur, Ill.; 15, Amherst, Amherst, Mass.; 20, Coe, Cedar Rapids, Iowa; 10, Beloit, Beloit, Wis.; 15, Grinnell, Iowa; 5, Illinois, Jacksonville, Ill.; 10, Monmouth, Monmouth, Ill.; 15, Lake Forest, Lake Forest, Ill.; 10, Wheaton, Wheaton, Ill.; 5, Carthage, Carthage, Ill.; 5, Eureka, Eureka, Ill.; 5, Shurtleff, Upper Alton, Ill.; 5, Illinois Wesleyan, Bloomington, Ill.; 10, Wooster, Ohio; 10, Cornell, Mount Vernon, Iowa; 10, Blackburn, Carlinville, Ill.; 10, Dennison, Granville, Ohio; and 15 to colleges not yet designated. Ex-service men and women desiring to apply for scholarships should make application to the institutions listed.

The Illinois State Teachers Association at its meeting in December elected William B. Owen as president. Mr. Owen has the unique distinction, therefore, of being president of both the National Education Association and one of the largest state associations in the country.

Legislation covering health work among children, a state-wide county library service and expert helpers for teachers in one-room schools, is being urged by the State Department of Education of Minnesota.

The Ohio Teacher has met with such an extensive development during the editorship of Mr. Henry G. Williams, that it has been found necessary to employ an assistant editor. Mr. Harvey E. Conard, who founded the *Wyoming School Journal* while serving as superintendent of city schools at Cheyenne, has been selected for this post.

A bill has been introduced in the legislature of West Virginia to change the name of the Fairmont State Normal School to the Fairmont State Teachers College, as the institution has been authorized to offer a four-year college course.

The Virginia Journal of Education announces that the Carnegie Foundation will soon make a survey of the pension system of Virginia. This system has been in operation for fourteen years.

The Wisconsin Teachers Association has purchased the *Wisconsin Journal of Education* and will take charge of its publication beginning with the September number.

Dr. John Adams, for many years professor of education in the University of London, will lecture at the Southern Branch of the University of California during the spring, and at the University of California, Berkeley, during the summer. Doctor Adams is spending the year in the United States, and, after completing his engagements in California, will give a series of lectures in Australia, New Zealand, and South Africa.

The needs of the schools in the District of Columbia have been investigated by Dr. Thomas E. Finegan, State Superintendent of Public Instruction of Pennsylvania, at the request of the joint Congressional committee, of which Senator Capper is chairman. Doctor Finegan's report points out that failure on the part of Congress to make the necessary provision has resulted in an unprogressive system, with overcrowded and inadequate school facilities and conditions generally that make good teaching impossible. Declaring that the superintendent and teaching staff generally are of high standard and that the superintendent has repeatedly pointed out the needs of the schools, Doctor Finegan states that not only should greater financial support be provided, but that the administrative machinery should be changed. He recommends the placing of school affairs in the hands of a board of education to be appointed by the President with complete divorcement from all municipal and political affairs; that such board be given power to submit its own budget to the bureau of budget and have full control of all school expenditures; that the board have power to select sites and approve plans and specifications for new school buildings; that a workable plan to provide school buildings, school sites, and playgrounds for a period of at least twenty years be adopted; and that an immediate building plan to relieve congestion through the erection of new junior high school buildings and the remodeling of existing elementary and senior high school buildings, be carried out.

A summer school of biology will be maintained at Cornell University this year, under the joint auspices of the regular summer session of the University and the New York State College of Agriculture. Intensive courses of study designed for teachers and graduate students will be given during the regular summer session from July 9 to August 17, with facilities for research work during the remainder of the summer.

Arrangements have been made by which the Red Cross course of instruction in hygiene and care of the sick may be given as part of the work of the Girl Scouts, and credit accepted toward the merit badges of the Scout organization. A pamphlet prepared jointly by the two organizations has been issued, explaining the courses as agreed upon.

The National Association of Public School Business Officials will hold its annual meeting at St. Louis, during the week of May fourteenth. Mr. Herbert N. Morse of Trenton, New Jersey, is president, and Mr. G. W. Grill of Lakewood, Ohio, treasurer of the association.

Ignace Jan Paderewski, musician and statesman, was given the degree of Doctor of Laws, by the University of Southern California, at the Washington's Birthday celebration of that institution.

Professor William Henry Goodyear died at his home in Brooklyn in February, at the age of seventy-eight. He was for many years head Egyptologist of the Brooklyn Institute of Arts and Sciences.

Johns Hopkins University, at its annual founders' day in February, conferred the degree of Doctor of Laws upon the British Ambassador, Sir Auckland Geddes. The

name of the Ambassador was presented by Doctor Lewis H. Wede, professor of anatomy, who told of his achievements as an investigator, a scientist, and an administrator.

Dr. Paul Samuel Reinsch died in China in January. Doctor Reinsch, who was a graduate of the University of Wisconsin and later professor of political science at the same institution, was appointed in 1913 by President Wilson to be Minister to China, but resigned in 1919 because of dissatisfaction with the President's attitude toward the Chino-Japanese controversy. He became counselor to the Chinese Government and lived long enough to see consummated one of his plans for the welfare of China—the return of Shantung.

In June, Frederick L. Allen, for the past four years Secretary of the Harvard Corporation, will leave the University to assume the duties of literary adviser to the publishing house of Harper and Brothers.

Dr. Margaret Shove Morris in February assumed office as Dean of the Women's College of Brown University, to succeed Miss Lida Shaw King. Doctor Morris, who is a graduate of Goucher College and has been a professor at Mount Holyoke, is the fourth dean of the Women's College, since it was founded a quarter of a century ago.

The Academy of Science in Paris announces that the first practical method of transmitting writing by wireless was discovered sixteen years ago by a young scientist, Raoul Basset, who through poverty and inability to obtain aid was unable to develop his brilliant discovery. Documents bearing upon his invention were submitted to the Academy of Science in 1907, but, unfortunately, were not opened until last January, when Professor Janet was directed to look into the matter. Professor Janet reports that the method was practical at the time the documents were filed.

Charles E. Pellew, for many years professor of chemistry at Columbia University and president of the New York Society of Craftsmen, has announced his intention of claiming the title of Viscount of Exmouth, which his father, Henry Edward Pellew, who died in February, declined to assume.

Dr. L. A. Bauer, Director of the Department of Terrestrial Magnetism of Carnegie Institute, and his staff are now determining corrections between the standard instruments in the Washington laboratory for measuring the earth's magnetism and other instruments in different parts of the country. The tests and experiments are so delicate that the "leakage" from the electric lines of street cars half a mile away make absolute accuracy impossible. For this reason the car service on a portion of Connecticut Avenue has been supplanted by auto buses for certain hours of the night.

The skull and skeleton of a dinosaur, which roamed Asia five million years ago, antedating any specimen found in the United States, have been discovered in Central Mongolia by a scientific expedition, according to an announcement made by the American Museum of Natural History in New York City. The discovery is said to be important as confirming the theory that Asia was the source of many immigrant faunae of western North America during the latter part of the age of reptiles and the early part of the age of mammals.

A blind war veteran, Lieut. Frank Schoble, Jr., has been chosen from more than one hundred applicants as one of the four University of Pennsylvania students to represent the institution in intercollegiate debates. Blinded by shrapnel, while leading his men in the Argonne, Lieutenant Schoble has mastered the Braille system and is making a fine record in the University.

The Harvard School of Education is undertaking the most extensive investigation yet made of the mental and physical

development of hundreds of school children. The project, which is under the direction of Prof. Walter F. Dearborn, is described by Dean Henry Holmes of the Harvard Graduate School of Education as "a new research enterprise of major importance." Several hundred children will be submitted to measurements and tests at intervals over a period of twelve years, or from the age of six to that of eighteen. Since October 1, 1922, more than 1,600 public school children in the first and second grades have been examined at the psycho-educational clinic at Harvard. A second group intelligence test, to check the result of the first, has been applied to about 1,200. It is planned to decrease the numbers so that approximately 500 children will remain in the group under observation throughout the whole twelve-year period. Each child will be given intelligence tests, group and individual; his school accomplishment will be measured by means of standardized tests in reading and arithmetic with a record of his teacher's judgment and observation of the same; his height, weight, and bodily proportions will be measured, his physical condition observed, his teeth examined, and the ossification of the carpal bones shown by X-ray photographs. Professor Dearborn in outlining the scope of the investigations says:

> We cannot classify children properly, select the gifted or the deficient for special treatment, deal with individuals of unusual traits, adjust our teaching or our schools to the various levels of development, or handle our human material with maximum effectiveness, unless we can become more certain in our judgments concerning individual cases. We ought to be able to study any given child as an individual in the light of comprehensive knowledge of individual growth.

The Division of Educational Psychology of the Institute of Educational Research of Teachers College, Columbia University, is carrying on, under the direction of Prof. Edward L. Thorndike, five interesting experiments. (1) Miss Mabel Carney and Dr. Fannie W. Dunn, through a fund given by Mr. Felix M. Warburg, are making an experiment in a district school in New Jersey with a view to working out improvements in the rural school curriculum. (2) By means of a fund provided by the Trustees of Teachers College, a census and inventory of English constructions are being made. The results are expected to be an accurate knowledge of the importance of each construction, save the rarest, that will lead to improvement in the means and methods used in teaching reading and composition to both natives and foreigners. (3) An investigation of the psychology of algebra is being carried on through a grant of $11,500 from the Commonwealth Fund. It is expected that the report of this will soon be issued. (4) Through a gift of $11,600 from the Commonwealth Fund an investigation of improved means of educational and vocational guidance for boys and girls from twelve to sixteen years of age has been undertaken. Its special purpose is to provide teachers and social workers with convenient methods of measuring abilities related to success in school work, office work, and work at skilled and unskilled trades. (5) The Institute has coöperated with the American Classical League in its study of the teaching of Latin.

The endowment fund of the New York Public Library has been increased $6,000,000 through gifts of $3,000,000 made by John D. Rockefeller, Jr., $2,000,000 by Payne Whitney, a trustee of the institution, and $1,000,000 by Edward S. Harkness, another trustee.

W. W. Marquardt has resigned as Philippine Educational Agent, and will represent the American Book Company in Manila.

Some of the fundamentals of chemistry have been changed by simple experiments being made by Dr. W. D. Harkins and Dr. R. D. Mulligan before classes at the University of Chicago. Chlorine has been separated into two elements by passing it through the stems of ordinary smoking pipes, although it has long been regarded as a

single element. Mercury has been demonstrated to contain at least six and possibly seven or eight elements, as it has been "split up" through evaporation at low pressure and its diffusion through filter paper.

The Navy Department has announced that naval academy graduates will be required to put in three years of service in the navy after graduation, as had been the custom for many years previous to the war. Since the war, resignations of officers have been accepted when presented, without regard to any return to the government for the training given such officers.

William F. Deegan, former commander of the New York State department of the American Legion, declares the rehabilitation program of vocational training for ex-soldiers to be a "horrible fiasco." As an example of the way in which men have been trained for positions for which there is no demand, he cited the fact that the veterans' bureau of New York would soon graduate five hundred well-trained sign painters, notwithstanding that of the nine hundred men in New York City now identified with an organization of such tradesmen, more than forty per cent. are jobbers rather than workmen, and more than thirty per cent. are unemployed half of the time.

Ground was recently broken in New York City for the new George Washington High School, which will be the largest high school in the city, with seats for 3,700 pupils. The building will cost $3,500,000, and its site in upper New York City is most imposing, commanding a view of the Hudson Valley, Westchester County, and Long Island.

A new anæsthetic, said to have no effect on heart action and to minimize danger of pneumonia, has been discovered after thirteen years of experiments by Dr. A. B. Luckhart, associate professor of physiology at the University of Chicago, and J. P. Carter. Persons under its influence can be returned to consciousness almost immediately by the use of oxygen. The new gas is said to utilize properties of ethylene gas and to be superior to any known drug producing anæsthesia.

Dr. James R. Day, Chancellor Emeritus of Syracuse University, died at Atlantic City, on March 13, at the age of seventy-seven. The Chancellor, who retired last year after nearly thirty years service as head of the University, was stricken with pneumonia while on a vacation at the seaside resort.

The New Jersey State Board of Education has criticized sharply the action of Governor Silzer in signing a bill making the teaching of the Constitution obligatory in the schools of the state. They took the ground that so much time must be given to carrying out the obligations imposed by the Legislature that insufficient time remains for teaching the elementary subjects and that it is a mistake to add to the school curriculum by legislative enactment.

The approaching centennial of the writing of "Home, Sweet Home," makes the recent gift of the original manuscript of the song to the University of Rochester of especial interest. The folio was presented by Mr. Hiram W. Sibley, who purchased it at the sale of the library of Mrs. Luther Livingston. The manuscript has been placed in the Sibley Musical Library of the Eastman School of Music.

The University of Porto Rico has announced the dates of July 9–August 18, 1923, for its summer session. The courses offered include the literature of Spain and Spanish-America as well as the phonetics and technique of the language, and students are afforded the advantage of constant contact with Spanish-American civilization. Information and application blanks may be obtained from Miss Josephine W. Holt, City Normal School, Richmond, Va.

Within twelve hours of the announcement that thirty college men were desired by the Police Reserves of New York City for a three

years' course in aviation training, the quota was filled. Many of the men were Columbia students. The first year's instruction includes the rudiments of flying up to solo work. Forty-five days training at a land station of the naval air force will constitute the second year's work and in the final year the same period of time will be spent in training on an airplane mother ship. Upon completing the course, the students will be enrolled as ensigns in the Naval Reserve.

Vilhjalmur Stefansson, the Arctic explorer, lectured at Yale University this spring on "The Rise and Decline of the Polar Regions." Mr. Stefansson says that he looks forward to the time when the fertile lands of the Arctic Circle will be settled by the land-hungry.

The Institute of International Education will offer a very comprehensive tour of the great art centers of Europe this summer. The plan is in furtherance of the Institute's work in international education. Starting with preparatory lectures on shipboard, the students of art will follow an itinerary showing the development of art in historical order. This itinerary is as follows: Rome, with its classical background of Christian art; Perugia and Assisi, showing the influence of the Renaissance; Florence and Venice, with the culmination of the Renaissance; Milan, for the blending of the southern and northern ideals; Paris and Versailles; Brussels, Antwerp, Bruges, and Ghent; Amsterdam, Haarlem, and The Hague; and England. Among the lecturers will be Professor Albert C. Phelps of Cornell University, Miss Edith R. Abbott of the Metropolitan Museum of Art, Joseph C. Tidden of Rice Institute, and others to be announced later. Mrs. Helen Seymour Clifton of Wellesley College will be in charge of women students.

CORRESPONDENCE

Note.—It is hoped that in this new department our readers will feel free to express themselves with the utmost frankness both concerning the articles and the policies of the EDUCATIONAL REVIEW and concerning educational problems of all sorts and in every state and country. No restriction is placed upon the sentiments of the writers, but all contributions must be signed with the real name of the author.

To the Editor:

No authorization has been given me to represent "Mr. College President" in the formulation of an answer to Doctor Williams' question. But memories of the college presidents I know and have known, lead me to the conviction that every one of them would wish to answer "yes!!" to both questions—not with one exclamation point but with several!

Every college president knows that the stadium—or the thing the stadium stands for—is but one factor or element in the correlation of forces that may combine to make men. Every college president wants a stadium—or the thing a stadium stands for—to help him produce the quality of champions that makes men. The training of leaders is the gripping purpose for which colleges are founded and presidents appointed. If a stadium will help make the right sort of champions—and under certain conditions the thing the stadium stands for does help make that sort—then the college president wants a stadium.

Every college student is training himself for maturity with such help as he permits the college to give. Whether the training is good or bad and produces a champion or a failure depends on a good many things—one of which is the stadium. The stadium—or what it stands for—may train, or help train, a champion—or a dub. The real test of the training—the final heat—the great Olympic Game—for every college man and for every college woman arrives after the period of college training and conditioning has ended. And every college president knows that the

"stadium" influence, even though it may help produce a champion athlete, has frequently made it hard and even impossible for the graduate athlete to achieve the later and greater and more significant championship for which his college opportunity was given him.

In his problem of building men, the college president must work with the material that is furnished him. If the builders that hold the contract for the first seventeen to twenty years of life—childhood and youth, the pre-college period—were more successful, the college president-contractor would turn out a much better quality of product. If the parent, the teacher and the community had the sort of a stadium—or the thing the stadium stands for!—that the college president wants, the child and the youth would come nearer having every minute of his time accounted for in wholesome, attractive, joyful, big muscle activities that would help him lay a good physical and psychological basis for mental, moral, and physical championships.

There may be college presidents who believe in the moral prophylaxis of physical fatigue or exhaustion but I doubt it. Many of them—my experience would state, all of them—believe in the moral prophylaxis of busy, active leisure. They are all afraid of "vicious leisure."

If the college will provide a stadium that is built right, manned right, and programmed right, the combination of material equipment, wholesome leadership, and program variety will go a long way toward accounting for every minute of the student's playtime in wholesome, attractive, big muscle activity. A busy undergraduate life will have a greater moral prophylactic content if its leisure time is filled with vigorous, high-standard, out-in-the-open recreations, play, and athletics.

Mr. College President! Build all three! They go well together! Stadia! Champions!! Men!!!

T. A. Storey

Director, Department of Hygiene,
College of the City of New York.

To the Editor:

In your February number Mr. Lawrence A. Wilkins concludes his answer to my comments on his article "Concerning the Study of Spanish in the United States" with a direct invitation to me to take a stand with him on the following platform: equality of opportunity to study Spanish in American schools, realization that this equality is threatened by the work of some "professional schoolmen" and steadfast opposition to this work, greater stress on the literary values that are found in the language. . ., greater appreciation of Spanish as the language in which millions of our fellow-Americans express themselves. . . .

It is in order to accept this invitation that I ask you to give a little more space to the discussion of the Spanish question.

There is not a plank in this platform to which I do not heartily subscribe, and I should like to assure Mr. Wilkins that if the spirit of this platform had been apparent in his original article it would have drawn no criticism from me.

There is still one point, however, on which Mr. Wilkins and myself still seem to disagree, and that is in regard to the opposition to Spanish, which is evidently a source of great worry to him. In the first place I wish to state that I am neither totally uninformed regarding this opposition nor inclined to close my eyes entirely to it. I am fully aware that Spanish has enemies, but I believe that its worst enemies are among those who sincerely regard themselves as its staunchest friends, namely, those teachers of the language who persist in over-emphasizing its commercial aspects. The surest way to ruin a good cause is to rest its case on superficial arguments, ignoring or failing to stress sound ones. This is exactly what has been the trouble with Spanish, and is the origin of much if not most of the opposition to it. The cry of commercial value caused many students to enroll in Spanish, but did the cause a great deal more harm than good.

The professor whom Mr. Wilkins quotes as saying that Spanish is the biggest gold brick

in public education today, and that Spanish had no literature, probably derived all his ideas of Spanish from teachers of the language. If he was misinformed, whose fault was it? Those professors who stated that a knowledge of Spanish was about as useful as a knowledge of Chinese were almost right, if usefulness is to be measured only in dollars and cents. And if Spanish is merely a money-making tool it is no wonder that students are advised by a professor of Romance languages in a state university that in studying it they are wasting time.

The most imperative duty of the Hispanists is to repudiate completely this commercial idea, and by so doing cease to furnish their enemies with arms and ammunition which may be used not only on Spanish but on French and German too with deadly effect. When this is done, the only enemies Spanish has will be those who are the enemies of all the modern languages. Until this is done it will not only be the object of many bitter attacks, but will be a source of danger to the other languages as well.

I would therefore suggest an additional plank for Mr. Wilkins' platform, namely, the realization that the argument of commercial value is a liability rather than an asset and should be minimized if not entirely abandoned. I would also suggest that the best way to aid in securing equality of opportunity for the study of Spanish is *not* to prepare a symposium of the opinions of men who from the very nature of the work they are doing and the positions they occupy may safely be counted on in advance to emphasize the commercial aspects of the language.

HENRY WARD CHURCH.

ALLEGHENY COLLEGE,
MEADVILLE, PA.

REVIEWS

The Status of County Teachers Institutes in Pennsylvania.—BY CARMON ROSS. Thesis presented to the Graduate School at the University of Pennsylvania in partial fulfillment for the degree of Doctor of Philosophy. 1922. 168 pp.

The purpose of this study was the determination of the efficiency of the county teachers institutes in Pennsylvania. The methods of investigation were straightforward and as objective as it was possible in a problem of such a nature. They included historical and legal data; the avowed aims; a series of programs; the personnel; financial records; and testimony from teachers, supervisors, superintendents, state departments of public instruction, and professional educators of national prominence. Wherever the questionnaire was used, it was carefully worked out and guarded with all possible checks against errors in interpretation.

Abundant evidence is presented to indicate that the county institutes in Pennsylvania are an inefficient means of improving teachers in service, if the criterion for judgment be "Greater Teaching Power." If, on the other hand, the criterion be "Professional Inspiration," the institutes as such do function. The county superintendents of the state wrote that *professional inspiration* is the primary purpose of the institute. The teachers, however, stated that *methods of instruction* is the primary purpose of the institute. This evident difference in objectives shows that a real problem exists, which can not be honestly ignored by those who control institute programs and finances. The issue is clearly one of satisfaction with subjective or objective evidence of success.

Two noteworthy considerations in this study impress the reader in the chapters on "Historical Origins of Teachers Institutes" and "Status of Its Finances." In the former chapter the evidence is very clear that the county institutes were originally supported as a temporary means of teacher training, since no other means were then available. In the face, however, of abun-

dant opportunity for summer session work, reading circles, visiting days, demonstration classes, and sabbatical years, there is now little need of such a program.

In the chapter on finances, the author shows that over three quarters of a million dollars are spent annually on county institutes in the state and that only forty-two per cent. of this is spent on real professional instruction. If to this amount be added the expenses for which there was no tangible evidence, a conservative estimate would place the total cost at a million dollars. When this vast sum is placed beside the tangible evidence of value received, and what this sum would accomplish in helping teachers to defray their expenses in summer schools, the reader is forced to question the present practices existing in the county institutes. Such facts as these are worth serious consideration by state departments of public instruction, legislative committees, and county superintendents.

The author is to be commended for making such a valuable contribution to the professional literature of education. The evidence is beyond question, the method is statistical, the treatment is exhaustive, and the conclusions and constructive suggestions command the respect of readers by their intrinsic worth.

Sturgess Brown Davis.
University of Pittsburgh.

Spending the Family Income.—By S. Agnes Donham. Little, Brown & Co. 1921. 174 pp.

The author in this book discusses the considerations and standards which lead to the division or apportionment of the income in the way best calculated to meet the family needs. The futility of average or ideal figures for the budget as a hard and fast guide to any given family or individual, is emphasized throughout the book. However, the citation of range of allotment and percentage division as suggested by various workers and authorities would add to the value of the discussion.

The graphic circle as a means of visualizing the division of the income is suggestive and is a device which may be helpful in the class room and to those who will provide themselves with the necessary materials for making the representation. The chapter dealing with the income of the child has suggestions for children as well as parents concerning a matter of vital importance.

In line with the insistent demand of all work that has grown out of the war savings service, the author emphasizes the necessity and value of planning first for savings and then for expenditures.

This book will interest many who have given little thought or study to the family income and will doubtless serve a useful purpose as supplementary reading.

Ruth A. Wardall.
University of Illinois.

The Last Stand of the Old Siberia.—By R. A. F. Penrose, Jr. William F. Fell Co. 1922. 111 pp.

This attractive little volume reminds the reader in a way of Mrs. Summerhayes' book: *Vanished Arizona.* Those who had the pleasure of reading the last mentioned volume will regret that Doctor Penrose did not expand his book to a larger compass. He undoubtedly has it in his power to give a picture of Siberia as it was a quarter of a century ago. Old Siberia, like old Arizona, has vanished.

To those who know but little of that vast country, the view on Amur River will seem like a picture of our lower Hudson. Some notion of the vastness of the country may be found in the fact that such a river as the Lena is navigable to the extent of three thousand miles, and that in the days before the trans-Siberian railway was built it took about a year to journey from Moscow to Irkutsk. Those were the days when a traveler was in great danger from hostile natives, brigands, and wild beasts. We think of our own country as vast and it takes a little stretch of our imagination to realize that the distance from St. Petersburg to Vladivostok is some 6,500 miles, but in no case does the traveler have to cross a pass

higher than 3,500 feet, whereas in America some of our passes over the Rockies are as high as 12,000.

Those who have traveled in Russia and appreciate the easy-going way that the natives have in the matter of being on time will be somewhat surprised to learn that in 1901 at least the trans-Siberian train, on which Doctor Penrose made his journey, started on schedule time. They will also be somewhat surprised to read that this train carried a dining car, and had a library, bath room, barber shop, and apparatus for gymnastic exercises. In those days there was even provision made for a "church car," in which service was held for the passengers. Such accommodations, however, were for the well-to-do, and in many cities in which one arrived in Russia he was expected to bring his own bedding to the hotel where he was going to stop. The physical comforts in Russian cities, such as Tomsk and Vladivostok, were far greater than some western Europeans and Americans realize. There are to be found very handsome buildings, telephones, telegraphs, electric lights, theaters, hospitals, and, in fact, all the equipment of a modern city.

Doctor Penrose crossed Siberia before the railway was completed, and part of his journey was taken on Lake Baikal which is four hundred miles long. The boats which were used in transit were loaded by hand, and, in order to encourage the workmen to greater efforts, gaily attired music girls played harps and violins along the gangplank, and this, together with frequent drinks of vodka, seemed to have the desired effect of promoting greater activity. One is interested in the statement that a large flat mushroom fried in fat had a ready sale for the passengers when the train stopped at the stations. Americans would do well to avoid these articles, for it is well known that the Russians have become accustomed to eating a mushroom which when eaten by others causes most serious stomach disorders.

Readers who were much excited in the days when George Kennan spent much maudlin sentiment over the cruelties practised in Siberia will find their judgment somewhat altered when they realize that the exiles who were sent to Siberia were of a criminal class which would have suffered the death penalty in western European countries. The number of political and religious exiles was small in comparison with the criminal convicts. Whatever disadvantages may have accompanied the exile system, the intention of the government was humane and charitable, if one compares conditions with the number of criminals who were put to death in European countries. The free settlers gradually outnumbered the convicts, so that by our own day the traces of the convict class are fast disappearing.

JAMES SULLIVAN.
UNIVERSITY OF THE STATE OF NEW YORK.
ALBANY, N. Y.

Man and the Cosmos, An Introduction to Metaphysics.—By JOSEPH ALEXANDER LEIGHTON. D. Appleton and Company. 1922. 578 pp.

Since 1912, two books of real philosophical import have appeared in the United States; Doctor Leighton's is a third. Significantly enough, but one comes from a native hand. It is easy to cite a witness who would reason somewhat as follows: "Causes of this barrenness are not obscure. Our method of training, for example, leaves a trail of impotence everywhere, of an impotance due to arid professionalism which so magnifies tag-ends of petty 'research' as to evacuate joy from thought, distinction, not to say energy, from its expression. It were futile to anticipate much from a provincial lad, fed on presumptive adjuncts of philosophy, who has lost himself in a solemn 'investigation' of *Early Pragmatism among Montana Rustlers*. Then there is the blight of multiform propaganda. Shifty, unspiritual 'isms' abound, philosophically bankrupt, it is true, thanks to querulous rumors that 'science' (the repetition of similars), 'psycho-analysis' (commerce with inverted neurotics), 'socialization' (the materialistic interpretation of history), or an anthropoid 'sociology,' con-

stitute the 'mighty advances' of these last fifty years. The result has been prickly offensiveness, all too easily aroused by appeal to a *generatio aequivoca*, dating, it would seem, somewhere in the nineties, when mind began to be made. Mawkish turbulence, indolent simplification, and ridiculous prejudice bred by comprehensive ignorance of the 'why' and 'how' of philosophy proper as it always has been and always must be, have discounted slow, intelligent mastery. Self-sufficiency, a little acrid despite brave show of authoritative epistemological *pogroms* and triumphant voluntaristic rescripts, has turned philosophy into a Tom Tiddler's Ground, where ambiguous intruders exploit their several exclusive liberties to the dire peril of objective thinking." Our witness might clinch his plaint with the hope that, as Henry Adams said, "Chaos is better than Death." Were he to meet Doctor Leighton, he could go further and say, "here is a book which delivers us from the indelibly trivial."

A bare summary of the proportionate contents of the volume suffices to indicate where Doctor Leighton stands. The work contains an Introduction (What is Metaphysics?), and five Books. Book I, The Theory of Knowledge, covers 105 pages. Book II, The General Structure of Reality—the Categories, has 80 pages. Book III, Empirical Existents (Space, etc.), is allotted 71 pages. Even this hints broadly enough that adjuncts are relegated to their subordinate place. But, note that Book IV, Personality and its Values—Philosophy of Selfhood and Activity, runs to 176 pages, while Book V, The Order of the Universe, occupies 93 pages. Evidently, then, our author has escaped the strange delusion that philosophy is *a* science and addressed himself to immemorial problems, confronting, not dodging, the real difficulties.

Doctor Leighton says at the outset "I hold no brief for any 'school' or 'movement' of thought. I am interested only in trying to puzzle out such of the meanings of the world as I can" (viii); and he keeps his word. "Knowledge is always ragged at the edges. It promises more than it performs" (434). "I am an empiricist, and I maintain that, certainly, in the case of human organisms, and, presumptively, in the case of other organisms, the living organism is a self-developing . . . principle which dwells and operates in a physico-chemical machine" (258). Nevertheless, "the whole business of . . . metaphysics is to consider the various types of order and to try to order them into a comprehensive order system" (160–1). On any fair reckoning, the defects and qualities of the work issue from this open mind. I judge that Doctor Leighton has tried to cover too much ground, raising question after question which demands fuller treatment than his space permits. On the other hand, if, two generations hence, a serious student desired to realize the present status of affairs in American thought, he would find a most suggestive, even exhaustive, account here. The criss-cross characteristic of the time, the ferment of dubiety, are ever with us (cf., *e.g.*, pp. 297, 304 n, 309, 324 f., 346, 378 f., 447, 490, 509 f., 537, 557 f.). Likely enough, this detracts from the authoritativeness of Doctor Leighton's pronouncements; but, then, this is no time for final deliverances. Not that Doctor Leighton is a mere recorder, indifferent to outlook; again and again he gives almost aphoristic expression to his views, bringing problems to a head neatly. "All genuine realism must admit that knowledge has an intuitive basis" (51 n); "Kant's conception of the . . . manifold of sense . . . is an epistemological myth" (84 n); "all philosophies of history that have attempted to formulate genetic theories of progress have failed" (198); "the up-to-date form of the mechanistic conception of nature is a very tenuous and elusive . . . materialism" (258); "psychology . . . becomes a misleading name for the physiology of the nervous and muscular systems in their interrelations" (295); "personality is the most macrocosmic of all finite forms of existence" (381); "the moral self is more than social" (425); "time is not a dimension" (469); "we are partly things and partly persons" (487); and there is much of this sharp

insight (cf., *e.g.*, pp. 73, 140, 202, 224, 242, 407, 409, 478, 487). Professing himself no discipular idealist, Doctor Leighton is yet in the true line of the great idealistic succession. Professing himself no personalist, he yet stakes his hazard on personality. Hence, the home-thrusts at Bergson, Russell, the psychologists, the laboratory folk, and other popular phenomena that rise to the eye for the moment, tell their own tale. But it is even better told, because told directly, in Book V. Chapters 38 and 39, especially the latter, are the best things in the volume—wise, brave, definite, albeit cautious. And the whole thing is done with admirable temper.

Of course, coming

> Between the pass and fell-incensèd points
> Of mighty opposites,

Doctor Leighton proffers manifold reasons for difference of opinion. Indeed, this is one of his most valuable qualities. To take two cases. I do not grasp the treatment of Time, nor am I at all clear on the precise doctrine of the Absolute. But, as Doctor Leighton can afford to refer to his own stupidity (21), I need not blush to follow suit. On one matter of fundamental moment there is no room for difference of viewpoint. Doctor Leighton has done honor to American philosophy by his display of thoroughly adequate scholarship. He knows entirely just what he is about. On this ground alone, his work must rank indispensable to the genuine observer of present discontents. As a summary and an indication, it must take a distinctive place.

It ought to be added that, in a book on such a scale, many small oversights are probable. The publishers have done their part so well that I have chanced upon less than a score of little errors.

R. M. Wenley.

University of Michigan.

High School Geography.—By R. H. Whitbeck. The Macmillan Company. 1922. 577 pp.

For some years, Professor Whitbeck has been an ardent advocate of a broad-gauged course in geography for the high schools. This book may be used as a text for such a course.

Part I of this book involves much material that commonly has been considered separately under the heads of "Physical Geography" and "Commerical Geography." The author presents the facts and explanations of physical geography and considers the bearing of such phenomena on human activities. For example, the chapter on "Rock Weathering and Soil" is followed by a chapter on "Agriculture in the United States." The controlling ideas are: (1) get the facts, and (2) show the significance of the physical facts to man. Most of the illustrations are taken from the geography of the United States. The linking of physical facts with life responses will permit the teacher more effectively to motivate her work.

Part II is devoted to a regional consideration of Latin America, the British Empire, Continental Europe, China and Japan. The author stresses the more outstanding geographic problems of these regions. The various physical factors developed and applied in Part I are here studied in their interacting relations in influencing the policies of man.

The author has provided numerous exercises, questions, and problems of a thought-provoking nature. The pictures and maps add materially to the value of the book. Adequate provision has been made for the use of supplementary material. Place geography is not neglected.

So much ground has been covered that many of the topics are necessarily quite brief. One is tempted to state that the book would have served its purpose better if fewer topics had been treated in a more detailed way. This weakness can be overcome, however, through the use of supplementary material and careful guidance by the teacher.

The book is a distinct contribution in helping to solve the perplexing problems of high school geography.

M. E. Branom.

Harris Teachers College,
St. Louis, Mo.

OUR CONTRIBUTORS

WILLIAM M. PROCTOR, who is Associate Professor of Education in Stanford University, has charge of the work in secondary education and is the director of teacher training. Doctor Proctor's immediate interest in junior colleges is due in part to his membership on the Committee of Fifteen which is making a complete survey of secondary education in California for the California High School Teachers' Association. The Case Method of instruction is being adapted to many subjects. WILLIAM P. BURRIS, who contributes in this issue a study of this method as applied to the training of teachers, is Professor of Education in the University of Cincinnati. Professor Burris recently resigned the office of Dean of the College for Teachers at the University of Cincinnati in order that he might have more time for research work in the development of the Case Method for the study of teaching. He is recognized as one of the pioneers in the Platoon School movement, and is the author of numerous articles and pamphlets on school administration. The author of "The Art Education We Need" is the Specialist in Drawing and Industrial Training in the State Department of Education, Albany, New York. MR. WINSLOW has been a student at Pratt Institute and Teachers College, Columbia University, and has had a rich experience teaching in city schools and in teacher training institutions. STUART GRAYSON NOBLE is Professor of Education at Millsaps College. Doctor Noble has also been a member of the summer school faculties in various years at the University of Mississippi, the University of North Carolina, and George Peabody College for Teachers. STEPHEN S. VISHER is Associate Professor of Geography at Indiana University. His book, *Climatic Changes, Their Nature and Causes*, written in collaboration with Professor Ellsworth Huntington of Yale University, has recently been published by the Yale University Press. Doctor Visher is a contributor to the *Geographical Review*, the *Journal of Geology*, and other important magazines in his field. In 1922 MR. LANG resigned the superintendency of the United States Government Public Schools of the Canal Zone in order to do graduate work in the School of Administration, Stanford University. Mr. Lang had been superintendent of schools on the Isthmus from 1913–1922. STANLEY T. WILLIAMS is a member of the English Department at Yale. Doctor Williams is also on the staff of the *Yale Review* and is a frequent contributor to various magazines. FOWLER D. BROOKS, now Assistant Professor of Education, Johns Hopkins University, has held various public school positions, including the superintendency at Guthrie, Oklahoma, and later on the faculties of the University of Oklahoma and State Teachers College, Mankato, Minnesota. Doctor Brooks is a graduate of Columbia University. Our readers will remember with pleasure the article by PROFESSOR MACDONALD in the EDUCATIONAL REVIEW for June, 1921, on "Part-time Classes in Industrial Education." As in the present article, his viewpoint proved more philosophical than would be expected of one dealing primarily with vocational education. Professor MacDonald's thesis is that everything in the educational process depends upon having a clear vision of what is to be done and translating this into a form that can easily be comprehended by the average teacher. MRS. RIGGS, who contributes "Pedagogical Alibis," most of which many of our readers have heard on numerous occasions but have never recorded, is a teacher in Van Buren, Arkansas. Mrs. Riggs is a graduate of Vassar and is a frequent contributor to some of the leading magazines.

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